



**Messages and Codes
Volume 1**



**Messages and Codes
Volume 1**

Note

Before using this information and the product it supports, be sure to read the general information under "Notices" on page 1397.

First Edition (March 2004)

This edition applies to Version 8 of IBM DB2 Universal Database for z/OS (DB2 UDB for z/OS), product number 5625-DB2, and to any subsequent releases until otherwise indicated in new editions. Make sure you are using the correct edition for the level of the product.

Specific changes are indicated by a vertical bar to the left of a change. A vertical bar to the left of a figure caption indicates that the figure has changed. Editorial changes that have no technical significance are not noted.

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Chapter 1. Introduction to this book and the DB2 library

This section contains specific information about this book and a general overview of the DB2 library.

Throughout this book, “DB2” means the program product DB2 Universal Database for z/OS (DB2 UDB for z/OS). Other DB2 products are given their complete names or abbreviations.

Important

In this version of DB2 UDB for z/OS, the DB2 Utilities Suite is available as an optional product. You must separately order and purchase a license to such utilities, and discussion of those utility functions in this publication is not intended to otherwise imply that you have a license to them. See Part 1 of *DB2 Utility Guide and Reference* for packaging details.

Who should read this book

This book, *DB2 Universal Database for z/OS Messages and Codes*, lists messages and codes issued by DB2, with explanations and suggested responses. This book is intended for users and system programmers who might encounter DB2 messages and codes.

How to use this material

This book consists of the following topics:

- Part 1, “Introduction,” on page 1 explains the different types of messages and codes that DB2 generates.
- Part 2, “SQL return codes,” on page 11 lists the SQL return codes.
- Part 3, “DB2 messages,” on page 157 lists the various DB2 messages.
- Part 4, “Section 4. DB2 Codes,” on page 773 lists the various DB2 codes.
- Part 5, “IRLM messages and codes,” on page 1307 lists the various IRLM messages and codes.
- Part 6, “SNA codes,” on page 1341 lists the SNA codes.
- Appendix A, “CICS Transaction Abend/Dump Code,” on page 1351 explains the CICS transaction abend/dump code (DSNC).
- Appendix B, “Problem determination,” on page 1353 lists the diagnostic items and resource types you can use to resolve problems.
- Appendix C, “SQLSTATE Values—Common Error Codes,” on page 1363 lists the error code SQLSTATE values. These values provide common return codes for common error conditions.
- Appendix D, “New, Changed, and Deleted Messages and Codes,” on page 1385 lists the new, changed, and deleted messages and codes.
- “Notices” on page 1397 lists contact information and legal notices about this product

The introduction provides general information about DB2 messages and codes. You will be referred to it from appropriate places in the documentation. However, it is recommended that you become familiar with this material ahead of time.

The SQL return codes are listed by numeric sequence. The DB2 messages are listed in order of their subcomponent identifier and further by their numeric identifier. The codes are listed by their hexadecimal ID and further by their numeric identifier. The IRLM messages and codes are listed by numeric sequence.

Message identifiers and CSECT names are used to identify messages. Unless the message is issued by a subcomponent operating outside the DB2 environment (such as the precompiler or attachment facilities), messages are preceded by a *subsystem recognition character* that is defined during system installation. The subsystem recognition character is not shown in the message texts in this book.

All DB2 message identifiers are eight to ten characters long. The first three characters are always DSN: it is the DB2 component prefix name. The fourth character is the *subcomponent identifier*: it identifies the subcomponent of DB2 that issued the message. Each subcomponent has an associated *hexadecimal identifier* (hex ID): it is the hexadecimal representation of the subcomponent identifier. The *numeric identifier* is three to five characters long and begins at the fifth character in the message. The numeric identifier is unique within the subcomponent. The last character of the message identifier is the *message type code*. For DB2 messages in general, the I type code is used. However, some older messages use other type codes. The type code does not necessarily reflect the action that you should take to remedy the situation. See the Response sections for a message to determine the required actions associated with that message. An optional field that can be found after the message number is the *subsystem identifier* or *subsystem recognition character*. An additional optional field follows the *subsystem identifier*: it is the *csect-name*. Message identifiers and CSECT names have the following format:

```
DSNB209I ! DSNB1CHK
```

where:

DSN is the DB2 subsystem prefix name.

B is the subcomponent identifier; in this example B identifies the DB2 buffer manager and the hexadecimal ID for this subcomponent is X'C2'.

209 is the numeric identifier.

I indicates that this message is for information only.

! is the subsystem recognition character; it is an optional field.

DSNB1CHK

is the csect name; it is an optional field.

The DB2 reason codes and subsystem termination reason codes are 4 bytes long. The first byte is always 00: it is the *high-order byte*. The second byte is the *hexadecimal identifier* (hex ID): it identifies the DB2 subcomponent. The last 2 bytes are the *numeric identifier*: it is unique within the subcomponent. The codes have the following format:

```
00E50041
```

where:

00 is the high-order byte.

E5 is the hexadecimal identifier; it identifies the DB2 agent services manager.

0041 is the numeric identifier.

Accompanying each message and code is the following information, when applicable:

Explanation: This section tells what the message or code means, why it occurred, and what caused it. To assist in diagnosing problems, the CSECTs that issued the message are also included. However, if the issuing CSECT is placed in the message text at run time, it is not included in the explanation.

System Action: This part tells what is happening as a result of the condition causing the message or code. If this information is not shown, no system action is taken.

User Response: If a response by the user is necessary, this section tells what the pertinent responses are and their effect. If this information is not shown, no user response is required.

Operator Response: If an operator response is necessary, this section tells what the pertinent

responses are and their effect. If this information is not shown, no operator response is required.

System Programmer Response: If a response by the system programmer is needed, this part tells what the pertinent responses are and their effect. If this information is not shown, no system programmer response is required.

Programmer Response: If a programmer response is necessary, this part tells what the pertinent responses are and their effect. If this information is not shown, no programmer response is required.

Problem Determination: This section lists the actions that can be performed to obtain adequate data for support personnel to diagnose the problem. If this information is not shown, no problem determination is required.

Message type codes

The last character of a message identifier is the *type code*. Four type codes are used, as shown in the following list:

A	Immediate action	Action is required immediately. The associated task does not continue until the requested action is taken.
D	Immediate decision	Decision or action is required immediately. The associated task does not continue until the requested decision is made or action is taken.
E	Eventual action	Action is required at some point; however, the associated task continues. All RC=8 error messages that are not host related (SOFT errors) have the E changed to a W in precompiler output when SQL(ALL) is in effect. All RC=8 errors (HARD errors) look the same as they have in the past.
I	Information only	No action is required.

DB2 message severity codes

Messages issued by the precompiler subcomponent of DB2, as well as some messages issued by the service controller and utility subcomponents of DB2, provide severity codes. The specific meanings of the severity codes differ slightly for each of the subcomponents. In general, the higher the severity level, the more significant the situation.

Severity codes for these subcomponents are described at the beginning of the individual subcomponent sections in Part 3, "DB2 messages," on page 157. They are also included in the individual messages, where appropriate.

DB2 abend completion codes (X'04E' and X'04F')

DB2 uses two system abend completion codes: X'04E' and X'04F'.

X'04E' and X'04F' identify:

- Internal errors encountered during DB2 operation
- Diagnostic information for problem determination

- Subsystem actions initiated by the DB2 subcomponent involved in the error

X'04E'

An X'04E' abend completion code indicates that DB2 detected an internal error and abended a DB2 internal task (TCB) or a user-connected task. Errors associated with an X'04E' abend completion code might be preceded by an MVS system code or by internal errors.

The diagnostic material generated by the X'04E' abend must be examined to determine the source of the error that actually resulted in a subsequent task or subsystem termination.

X'04F'

An X'04F' abend completion code indicates that DB2 detected a severe error and abended the entire DB2 subsystem. When an X'04F' is issued, DB2 determined that continued operation could result in the loss of data integrity. Errors associated with an X'04F' abend completion code might be preceded by an MVS system error or by one or more DB2 X'04E' abend completion codes.

Table 1 summarizes the diagnostic information and subsystem actions available to DB2 when these abend completion codes are issued. Some pieces of this information are not relevant to some error situations and will not help in problem diagnosis. In these cases, DB2 does not produce any diagnostic information that is unnecessary. The information that DB2 produces for a given error depends upon the specific problem. The MVS services that provide diagnostic information are discussed in “DB2 diagnostic information” on page 7

Table 1. Abend Completion Codes

	X'04E'	X'04F'
Explanation	<ul style="list-style-type: none"> • Error during DB2 normal operation 	<ul style="list-style-type: none"> • Severe error; continued operation may jeopardize data integrity
System action	<ul style="list-style-type: none"> • Internal DB2 task is abended • Connected user task is abended 	<ul style="list-style-type: none"> • The entire DB2 subsystem is abended • User task with an active DB2 connection may be abnormally terminated with an X'04F' • Possible MEMTERM (memory termination) of connected allied address space
Diagnostic information	<ul style="list-style-type: none"> • SVC dump • SYS1.LOGREC entries • VRA data entries 	<ul style="list-style-type: none"> • SYS1.LOGREC entries • VRA data entries
Associated reason codes	<ul style="list-style-type: none"> • DB2 abend reason code • Associated MVS system codes 	<ul style="list-style-type: none"> • Subsystem termination reason code • MVS system completion codes and X'04E' codes that precede the X'04F' abend
Location of accompanying codes	<ul style="list-style-type: none"> • SVC dump title • Message DSNW050I • Register 15 of SDWA section “General Purpose Registers at Time of Error” • SYS1.LOGREC entries • VRA data entries 	<ul style="list-style-type: none"> • SYS1.LOGREC entries • VRA data entries • Message DSNV086E, which is sent to MVS system operator

DB2 diagnostic information

DB2's functional recovery routines use MVS services to provide diagnostic information for assistance in problem determination.

The following MVS services provide diagnostic information:

- SVC dumps
The DB2 abend completion code X'04E' uses the MVS SDUMP service to create SVC dumps. The content and storage areas associated with these dumps vary depending on the specific error and the state of the DB2 subsystem at the time the error.
- SYS1.LOGREC entries
Entries are requested in the SYS1.LOGREC data set at the time of the error using the MVS SETRP service. The following are also recorded in SYS1.LOGREC:
 - Subsystem abnormal terminations
 - Secondary abends occurring in a recovery routine
 - Recording requests from recovery routines percolated to by the recovery termination manager.
- Variable recording area (VRA) data
Data entries are added to the VRA of the SDWA by using an MVS VRA defined key. VRA data includes a series of diagnostic data entries common to both DB2 abend completion codes. Additional information is provided by the invoking subcomponent recovery routine during initial error processing or recovery termination manager percolation.

MVS abends resulting from DB2 operation

During DB2 operation, an abend can occur with an MVS system completion code. If you receive an MVS abend during DB2 operation, refer to the appropriate MVS publication.

Using LookAt to obtain message explanations

LookAt is an online facility that displays explanations for most messages that you encounter, and for some system abends and codes.

You can use LookAt:

- From the Internet at:
www.ibm.com/eserver/zseries/zos/bkserv/lookat/
- From anywhere in z/OS where you can access a TSO/E command line (for example, a TSO/E prompt, ISPF, or z/OS UNIX System Services running OMVS). To use LookAt as a TSO/E command, LookAt must be installed on your host system. Obtain the LookAt code for TSO/E from a disk on your z/OS Collection (SK3T-4269) or from the LookAt ftp site:
[ftp.software.ibm.com/ps/products/ibmreader/tools/lookat/ZOS/](ftp://software.ibm.com/ps/products/ibmreader/tools/lookat/ZOS/)
- From your Palm VIIx personal data assistant (PDA). To use LookAt from your Palm VIIx PDA, LookAt must be installed on the PDA. Obtain the LookAt code from a disk on your z/OS Collection (SK3T-4269) or from the LookAt ftp site:
[ftp.software.ibm.com/ps/products/ibmreader/tools/lookat/PALM/](ftp://software.ibm.com/ps/products/ibmreader/tools/lookat/PALM/)

Terminology and citations

In this information, DB2 Universal Database™ for z/OS™ is referred to as "DB2 UDB for z/OS." In cases where the context makes the meaning clear, DB2 UDB for z/OS is referred to as "DB2®." When this information refers to titles of books in this library, a short title is used. (For example, "See *DB2 SQL Reference*" is a citation to *IBM® DB2 Universal Database for z/OS SQL Reference*.)

When referring to a DB2 product other than DB2 UDB for z/OS, this information uses the product's full name to avoid ambiguity.

The following terms are used as indicated:

DB2 Represents either the DB2 licensed program or a particular DB2 subsystem.

DB2 PM Refers to the DB2 Performance Monitor tool, which can be used on its own or as part of the DB2 Performance Expert for z/OS product.

C, C++, and C language Represent the C or C++ programming language.

CICS® Represents CICS Transaction Server for z/OS or CICS Transaction Server for OS/390®.

IMS™ Represents the IMS Database Manager or IMS Transaction Manager.

MVS™ Represents the MVS element of the z/OS operating system, which is equivalent to the Base Control Program (BCP) component of the z/OS operating system.

RACF® Represents the functions that are provided by the RACF component of the z/OS Security Server.

Accessibility

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products. The major accessibility features in z/OS products, including DB2 UDB for z/OS, enable users to:

- Use assistive technologies such as screen reader and screen magnifier software
- Operate specific or equivalent features by using only a keyboard
- Customize display attributes such as color, contrast, and font size

Assistive technology products, such as screen readers, function with the DB2 UDB for z/OS user interfaces. Consult the documentation for the assistive technology products for specific information when you use assistive technology to access these interfaces.

Online documentation for Version 8 of DB2 UDB for z/OS is available in the DB2 Information Center, which is an accessible format when used with assistive technologies such as screen reader or screen magnifier software. The DB2 Information Center for z/OS solutions is available at the following Web site: <http://publib.boulder.ibm.com/infocenter/db2zhelp>.

How to send your comments

Your feedback helps IBM to provide quality information. Please send any comments that you have about this book or other DB2 UDB for z/OS documentation. You can use the following methods to provide comments:

- Send your comments by e-mail to db2pubs@vnet.ibm.com and include the name of the product, the version number of the product, and the number of the book. If you are commenting on specific text, please list the location of the text (for example, a chapter and section title, page number, or a help topic title).
- You can also send comments from the Web. Visit the library Web site at:

www.ibm.com/software/db2zos/library.html

This Web site has a feedback page that you can use to send comments.

- Print and fill out the reader comment form located at the back of this book. You can give the completed form to your local IBM branch office or IBM representative, or you can send it to the address printed on the reader comment form.

Summary of changes to this book

This edition adds and modifies messages and codes to support DB2 Version 8. It also incorporates technical corrections and changes made to previously published information. For specific information about new, changed and deleted messages and codes for Version 8, see Appendix D, “New, Changed, and Deleted Messages and Codes,” on page 1385.

Part 2. SQL return codes

Chapter 2. SQL return codes

The information in this chapter is General-use Programming Interface and Associated Guidance Information, as defined in “Notices” on page 1397.

Introduction

Structured Query Language (SQL) return codes, and the tokens referred to in the explanations, are returned in the SQL communication area (SQLCA).

The SQLCA is an area in the application program (defined by the application program) for the use of DB2. It is described in Appendix C of *DB2 SQL Reference*.

The SQL return code is returned in the SQLCODE field of the SQLCA. The tokens are returned in the SQLERRM field. If there are several tokens, they appear sequentially in SQLERRM in the order in which they appear in the message text. The tokens are separated by the character X'FF'.

A token appears in the message text in lowercase letters. When an SQL return code is returned through SPUFI, the tokens have been substituted into the message text and the text is displayed. The substitution of tokens into message text is performed by a DB2 module named DSNTIAR. This module can also be used by application programs. Refer to Part 2 of *DB2 Application Programming and SQL Guide* for more information about DSNTIAR.

Checking the execution of SQL statements

An application program containing executable SQL statements must either provide a structure named SQLCA or a stand-alone integer variable named SQLCODE (SQLCOD in FORTRAN). An SQLCA may be provided by using the INCLUDE SQLCA statement. INCLUDE SQLCA must not be used if a stand-alone SQLCODE is provided.

The SQLCA includes an integer variable named SQLCODE. The option of providing a stand-alone SQLCODE instead of an SQLCA allows for conformance with the ISO/ANSI SQL standard. The use of this option must be indicated to the precompiler.

SQLCODE

Regardless of whether the application program provides an SQLCA or a stand-alone variable, SQLCODE is set by DB2 after each SQL statement is executed. DB2 conforms to the ISO/ANSI SQL standard as follows:

- If SQLCODE = 0, execution was successful.
- If SQLCODE > 0, execution was successful with a warning.
- If SQLCODE < 0, execution was not successful.
- SQLCODE = 100, “no data” was found. For example, a FETCH statement returned no data because the cursor was positioned after the last row of the result table.

SQLSTATE

SQLSTATE is also set by DB2 after the execution of each SQL statement. Thus, application programs can check the execution of SQL statements by testing SQLSTATE instead of SQLCODE. SQLSTATE (SQLSTT in FORTRAN) is a 5-byte character string variable in the SQLCA.

SQLSTATE provides application programs with common codes for common error conditions (the values of SQLSTATE are product-specific only if the error or warning is product-specific). Furthermore, SQLSTATE is designed so that application programs can test for specific errors or classes of errors. The coding scheme is the same for all IBM relational database products. See Appendix C, “SQLSTATE Values—Common Error Codes,” on page 1363 for more information and a complete list of the possible values of SQLSTATE.

Successful execution SQL code

000 SUCCESSFUL EXECUTION

Explanation: Unqualified successful execution or successful execution with one or more warnings. If SQLWARN0 is blank, there are no warnings. If SQLWARN0 = W, at least one of the other warning indicators in the SQLCA has been set to indicate a warning condition. For example, SQLWARN1 is used to indicate that a value of a string column was truncated when assigned to a host variable. SQLWARNx fields are described in Appendix C of *DB2 SQL Reference*.

SQLSTATE: 00000 for unqualified successful execution

SQLSTATE: 01ddd for successful execution with warning 'ddd'.

+012 THE UNQUALIFIED COLUMN NAME *column-name* WAS INTERPRETED AS A CORRELATED REFERENCE

Explanation: The column name does not identify a column of a table or view in the FROM clause of the subquery. However, it does identify a column of a table or view in a FROM clause at a higher level in the statement.

System Action: The column name is interpreted as a correlated reference.

Programmer Response: If DB2's interpretation of the column name was not what you intended, rewrite the SQL statement and submit it again. If you intend the column name to refer to a table named at a higher level, we advise rewriting the statement anyway, using a table name or correlation name as a qualifier for the column name. The unqualified column name could be interpreted differently if you do a rebind after altering one of the tables to which you refer.

SQLSTATE: 01545

+098 A DYNAMIC SQL STATEMENT ENDS WITH A SEMICOLON.

Explanation: The statement string of a PREPARE or EXECUTE IMMEDIATE statement is a valid dynamic SQL statement, but it ends with a semicolon.

System Action: The semicolon and any subsequent text are ignored.

Programmer Response: Check that the semicolon is being used as a statement terminator.

SQLSTATE: 01568

+100 ROW NOT FOUND FOR FETCH, UPDATE OR DELETE, OR THE RESULT OF A QUERY IS AN EMPTY TABLE

Explanation: One of the following conditions occurred:

- No row met the search conditions specified in an UPDATE or DELETE statement.
- The result of a SELECT INTO statement was an empty table.
- A FETCH statement was executed when the cursor was positioned after the last row of the result table.
- The result of the subselect of an INSERT statement is empty.

When a SELECT statement is executed using SPUFI, this SQLCODE indicates normal completion.

System Action: No data was retrieved, updated, or deleted.

SQLSTATE: 02000

+110 SQL UPDATE TO A DATA CAPTURE TABLE NOT SIGNALLED TO ORIGINATING SUBSYSTEM

Explanation: DataPropagator (DPropNR) exit routine issued an SQL INSERT, UPDATE, or DELETE

statement to a table defined with DATA CAPTURE CHANGES. Since data capture is already in progress, notification is not sent back to the originating IMS subsystem.

System Action: DB2 changes the data and records the change in the log. DB2 does not notify DPropNR's exit routine of the change, because doing so might cause the same change to be made again.

SQLSTATE: 01561

+111 THE SUBPAGES OPTION IS NOT SUPPORTED FOR TYPE 2 INDEXES

Explanation: You cannot use the SUBPAGES option for type 2 indexes.

System Action: The option is ignored and processing continues.

Programmer Response: Remove the SUBPAGES option to get rid of the warning.

SQLSTATE: 01590

+117 THE NUMBER OF INSERT VALUES IS NOT THE SAME AS THE NUMBER OF OBJECT COLUMNS

Explanation: The number of insert values in the value list of the INSERT statement is not the same as the number of object columns specified.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, specify one and only one value for each of the specified object columns.

SQLSTATE: 01525

+162 TABLESPACE *database-name.tablespace-name* HAS BEEN PLACED IN CHECK PENDING

Explanation: The indicated table space is in check pending status because the ALTER TABLE statement was used to specify a referential constraint or a check constraint (while special register CURRENT RULES = 'DB2') on a populated table. The table space is not generally available until the check pending status is removed from the table space.

System Action: The table space was placed in check pending status.

Programmer Response: Run the CHECK DATA utility. The enforcement of the referential constraint or the check constraint is deferred until the CHECK DATA utility is run.

SQLSTATE: 01514

+203 THE QUALIFIED COLUMN NAME *column-name* WAS RESOLVED USING A NON-UNIQUE OR UNEXPOSED NAME

Explanation: The table designator selected to resolve a qualified column name is one of the following:

- An unexposed name
- An exposed name that has an exposed duplicate in the same FROM clause
- An exposed name that has an unexposed duplicate which appears before the selected name in the ordered list of names to which the qualifier is compared

Therefore, the statement does not conform to the guidelines for using only unique exposed names as qualifiers or it is possible that the column reference was not resolved to the intended instance of the table or view.

System Action: DB2 uses the selected name to resolve the reference.

Programmer Response: If DB2's resolution of the qualifier was not what you intended, rewrite the SQL statement and submit it again. The rules used to resolve column name qualifiers are given in Chapter 2 of *DB2 SQL Reference*.

SQLSTATE: 01552

+204 *name* IS AN UNDEFINED NAME

Explanation: The object identified by 'name' is not defined in the DB2 subsystem. This return code can be generated for any type of DB2 object.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, determine that the object name was correctly specified in the SQL statement (including any required qualifiers). If so, ensure that the object exists in the system before resubmitting the statement.

SQLSTATE: 01532

+206 *column-name* IS NOT A COLUMN OF AN INSERTED TABLE, UPDATED TABLE, OR ANY TABLE IDENTIFIED IN A FROM CLAUSE

Explanation: This return code is used to report one of these errors:

- In the case of an INSERT or UPDATE statement, the specified column is not a column of the table or view that was specified as the object of the insert or update.

- In the case a SELECT or DELETE statement, the specified column is not a column of any of the tables or views identified in a FROM clause in the statement.
- There is a correlated reference in GROUP BY.
- There is an unresolved qualified reference in HAVING.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, verify that the column and table names are specified correctly in the SQL statement. In the case of a SELECT statement, check to be sure that all of the required tables were named in the FROM clause.

SQLSTATE: 01533

+218 THE SQL STATEMENT REFERENCING A REMOTE OBJECT CANNOT BE EXPLAINED

Explanation: The user has used EXPLAIN(YES) on the bind subcommand to bind an application which has SQL statement referencing a remote object or the user has a static EXPLAIN SQL statement which references a remote object in the application program. EXPLAIN on a remote object is not supported by DB2.

It is issued at BIND time, and only with VALIDATE(RUN).

System Action: The plan or package will be bound successfully, but no information will be filled in the user's PLAN-TABLE for the SQL statement referencing a remote object. An SQLCODE -512 will be issued at run time if the EXPLAIN statement is found to explain a remote object.

SQLSTATE: 01537

+219 THE REQUIRED EXPLANATION TABLE *table-name* DOES NOT EXIST

Explanation: The EXPLAIN statement assumes the existence of the explanation table and it is not defined in the DB2 subsystem as a base table. Refer to Chapter 5 of *DB2 SQL Reference* for more information.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, determine whether the required explanation table does exist. If not, create the required table.

SQLSTATE: 01532

+220 THE COLUMN *column-name* IN EXPLANATION TABLE *table-name* IS NOT DEFINED PROPERLY

Explanation: An error occurred during the insertion of a row into the explanation table. The table is improperly defined for the following reasons:

- A column is missing.
- Columns are defined in the wrong order.
- The table contains an extra column.
- A column description is invalid because of its name, data type, length, or null attributes.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, correct the definition of the required explanation table. Refer to Chapter 5 of *DB2 SQL Reference* for information about defining an explanation table.

SQLSTATE: 01546

+222 HOLE DETECTED USING CURSOR *cursor-name*

Explanation: A delete hole or an update hole has been detected while processing a FETCH for cursor *cursor-name*. With a SENSITIVE STATIC cursor, a delete hole occurs when DB2 tries to refetch a row from the database for a cursor and finds that the corresponding row of the underlying table has been deleted. An update hole occurs when DB2 tries to refetch a row from the database for a cursor and finds that the corresponding row of the underlying table no longer satisfies the search condition.

cursor-name
Name of the cursor used for the FETCH statement.

System Action: The statement cannot be processed, and no data is fetched. The cursor is repositioned on the hole.

Programmer Response: Correct the application program to handle this situation, or change isolation levels so the base row cannot be deleted during the cursor operation.

SQLSTATE: 02502

+231 CURRENT POSITION OF CURSOR *cursor-name* IS NOT VALID FOR FETCH OF THE CURRENT ROW

Explanation: The cursor was not positioned on a row, and either FETCH CURRENT or FETCH RELATIVE 0 was specified. No data was fetched.

cursor-name

Name of the cursor used for the FETCH statement.

System Action: The statement cannot be processed. The cursor position is unchanged.

Programmer Response: Correct the application program to establish position before issuing this FETCH statement.

SQLSTATE: 02000

+236 SQLDA INCLUDES *integer1* SQLVAR ENTRIES, BUT *integer2* ARE REQUIRED FOR *integer3* COLUMNS

Explanation: The value of the SQLN field of the SQLDA should be at least as large as the number of columns being described. *integer3* is the number of columns being described.

In the case that USING BOTH has been specified, twice as many SQLVAR entries are needed as the number of columns being described.

The number of SQLVAR entries that are needed to return all of the information about the columns is *integer2*.

Note: in the case of DESCRIBE INPUT, each reference to *column* would actually be *parameter*.

System Action: The SQLDAID 7th byte has been set to "on" with a value of 2 indicating that 2 SQLVAR entries are needed for each column. DB2 has not set any SQLVAR entries.

Programmer Response: Increase the value of the SQLN field in the SQLDA to the value indicated in the message (making sure the SQLDA is large enough to support that amount) and resubmit the statement.

SQLSTATE: 01005

+237 SQLDA INCLUDES *integer1* SQLVAR ENTRIES, BUT *integer2* ARE REQUIRED BECAUSE AT LEAST ONE OF THE COLUMNS BEING DESCRIBED IS A DISTINCT TYPE

Explanation: Given that at least one of the columns being described is a distinct type, space should be provided for the *extended* SQLVAR entries in addition to the *base* SQLVAR entries. The value of SQLN, *integer1*, indicates that there are not enough SQLVAR entries for the base and extended SQLVAR entries.

The total number of SQLVAR entries that are required depends on whether USING BOTH was specified (*n* is the number of columns being described):

- With USING BOTH, space should be allocated for $3n$ SQLVAR entries.

- Otherwise, space should be allocated for $2n$ SQLVAR entries.

The number of SQLVAR entries that are needed to return all of the information about the columns is *integer2*.

Note: in the case of DESCRIBE INPUT, each reference to *column* would actually be *parameter*.

System Action: DB2 has set the SQLDAID 7th byte flag "on" because sufficient space was not provided for the *extended* SQLVAR entries. The value of the 7th byte flag indicates how many SQLVAR entries are needed for each column. Additionally, because there were enough SQLVAR entries for the *base* SQLVARs, DB2 has set the fields of the *base* SQLVAR entries. However, DB2 has not set any *extended* SQLVAR entries.

Programmer Response: If there is no need for the additional information about the distinct type(s), then no action is required unless USING BOTH was specified (in which case additional SQLVAR entries must be provided for the labels).

If the distinct type information is needed, the value of the SQLN field in the SQLDA should be increased to *integer2* (after making sure that the SQLDA is large enough to support that amount) and the statement should be resubmitted.

SQLSTATE: 01594

+238 SQLDA INCLUDES *integer1* SQLVAR ENTRIES, BUT *integer2* SQLVAR ENTRIES ARE NEEDED FOR *integer3* COLUMNS BECAUSE AT LEAST ONE OF THE COLUMNS BEING DESCRIBED IS A LOB

Explanation: Given that at least one the columns being described is a LOB, space must be provided for the *extended* SQLVAR entries in addition to the *base* SQLVAR entries. The value of SQLN, *integer1*, indicates that there are not enough SQLVAR entries for the base and extended SQLVAR entries. One or more of the columns being described may be a distinct type.

The total number of SQLVAR entries that are required depends on whether USING BOTH was specified or not (*n* is the number of columns being described which is *integer3*), and whether the columns include any distinct types:

- With USING BOTH, and one or more distinct types, space should be allocated for $3n$ SQLVAR entries.
- Otherwise, space should be allocated for $2n$ SQLVAR entries.

The number of SQLVAR entries that are needed to return all of the information about the columns is *integer2*.

Note: in the case of DESCRIBE INPUT, each reference to *column* would actually be *parameter*.

System Action: DB2 has set the SQLDAID 7th byte flag "on" because sufficient space was not provided for the *extended* SQLVAR entries. The value of the 7th byte flag indicates how many SQLVAR entries are needed for each column. DB2 has not set any SQLVAR entries.

Programmer Response: Increase the value of the SQLN field in the SQLDA to *integer2* (after making sure that the SQLDA is large enough to support that amount) and resubmit the statement.

SQLSTATE: 01005

+239 SQLDA INCLUDES *integer1* SQLVAR ENTRIES, BUT *integer2* ARE REQUIRED FOR *integer3* COLUMNS BECAUSE AT LEAST ONE OF THE COLUMNS BEING DESCRIBED IS A DISTINCT TYPE

Explanation: Given that at least one of the columns being described is a distinct type, space should be provided for the *extended* SQLVAR entries in addition to the *base* SQLVAR entries. The value of SQLN, *integer1*, indicates that there are not enough SQLVAR entries for the base and extended SQLVAR entries.

The total number of SQLVAR entries that are required depends on whether USING BOTH was specified or not (*n* is the number of columns being described which is *integer3*),

- With USING BOTH, space should be allocated for *3n* SQLVAR entries.
- Otherwise, space should be allocated for *2n* SQLVAR entries.

The number of SQLVAR entries that are needed to return all of the information about the columns is *integer2*.

Note: in the case of DESCRIBE INPUT, each reference to *column* would actually be *parameter*.

System Action: DB2 has set the SQLDAID 7th byte flag "on" because sufficient space was not provided for the *extended* SQLVAR entries. The value of the 7th byte flag indicates how many SQLVAR entries are needed for each column. DB2 has not set any SQLVAR entries. :elq.

Programmer Response: If the distinct type information is needed, the value of the SQLN field in the SQLDA should be increased to *integer2* (after making sure the SQLDA is large enough to support that amount) and the statement should be resubmitted.

If there is no need for the additional information about the distinct type(s) in the result set, then it is possible to resubmit the statement only providing enough SQLVAR entries to accommodate the number of columns being

described (i.e. provide the necessary number of *base* SQL entries).

SQLSTATE: 01005

+252 A NON-ATOMIC *statement* STATEMENT SUCCESSFULLY PROCESSED ALL REQUESTED ROWS, WITH ONE OR MORE WARNING CONDITIONS

Explanation: A non-atomic *statement* statement successfully processed multiple rows of data. However, one or more warning conditions occurred. Use GET DIAGNOSTICS to obtain information about the warning conditions that occurred.

System Action: The statement was processed.

Programmer Response: Analyze the warning conditions to determine whether the statement should be rolled back or not.

SQLSTATE: 01659

+304 A VALUE WITH DATA TYPE *data-type1* CANNOT BE ASSIGNED TO A HOST VARIABLE BECAUSE THE VALUE IS NOT WITHIN THE RANGE OF THE HOST VARIABLE IN POSITION *position-number* WITH DATA TYPE *data-type2*

Explanation: A FETCH or SELECT into a host variable list or structure, position number *position-number* failed because the host variable having data type *data-type2* was not large enough to hold the retrieved value having data type *data-type1*.

System Action: The FETCH or SELECT could not return the data for the indicated SELECT item, the indicator variable is set to negative two (-2) to indicate a null value returned. Processing continues.

Programmer Response: Verify that table definitions are current, and that the host variable has the proper data type. See the explanation for SQLCODE -405 for ranges of SQL data types.

SQLSTATE: 01515

+331 THE NULL VALUE HAS BEEN ASSIGNED TO A HOST VARIABLE BECAUSE THE STRING CANNOT BE TRANSLATED. REASON *reason-code*, CHARACTER *code-point*, HOST VARIABLE *position-number*

Explanation: A string assigned to a host variable had to be translated from its coded character set to the coded character set of the host variable and an error occurred during the translation. The *position-number* is the ordinality of the host variable in the SQLDA. See the description of SQLCODE -331 for further information

including the meaning of the *reason-code* and *code-point*.

System Action: The host variable is unchanged and its indicator variable is set to -2 to indicate that a null value is returned. Execution of the statement continues as if the translation error had not occurred.

SQLSTATE: 01520

+335 **DB2 CONVERTED A HOST VARIABLE, PARAMETER, OR COLUMN NUMBER**
var-num var-name-or-num **TO COLUMN NAME, HOST VARIABLE, OR EXPRESSION NUMBER**
col-name-or-num **FROM** *from-ccsid* **TO** *to-ccsid*, **AND RESULTING IN SUBSTITUTION CHARACTERS**

Explanation: A translation error occurred during the conversion of a string to a different coded character set. One or more substitution characters have been placed in the string during the conversion process.

System Action: DB2 processes the statement successfully.

Programmer Response: DB2 processes the SQL statement, but used substitution characters instead of one or more characters as a result of character conversion from *from-ccsid* to *to-ccsid*. If substitution is acceptable, then no action is necessary. If substitution is not acceptable, then issue a ROLLBACK. Ensure that data being provided to DB2 is convertible from *from-ccsid* to *to-ccsid* without data loss.

SQLSTATE: 01517

+347 **THE RECURSIVE COMMON TABLE EXPRESSION** *name* **MAY CONTAIN AN INFINITE LOOP**

Explanation: The recursive common table expression called *name* may not complete. This warning is based on not finding specific syntax as part of the iterative portion of the recursive common table expression. The expected syntax includes:

- incrementing an INTEGER column in the iterative select list by 1.
- a predicate in the where clause of the iterative portion of the form "counter_col < constant" or "counter_col < :hostvar".

The absence of this syntax in the recursive common table expression may result in an infinite loop. The data or some other characteristic of the recursive common table expression may allow the successful completion of the statement anyway.

System Action: The statement cannot be executed.

Programmer Response: To prevent an infinite loop, include the expected syntax as described.

SQLSTATE: 01605

+394 **USER SPECIFIED OPTIMIZATION HINTS USED DURING ACCESS PATH SELECTION**

Explanation: Normal access path selection was bypassed in favor of an access path specified in the PLAN_TABLE.

System Action: Processing continues normally.

Programmer Response: Ensure that the access path is correct and produces the correct results.

SQLSTATE: 01629

+395 **USER SPECIFIED OPTIMIZATION HINTS ARE INVALID (REASON CODE =**
*reason-code***). THE OPTIMIZATION HINTS ARE IGNORED.**

Explanation: The optimization hints specified for this query are invalid. *Areason-code* in the following table can help identify why the hints were invalid:

reason-code

	Description
2	TABNO is invalid.
3	TNAME is not specified.
4	TNAME is ambiguous.
5	TABNO doesn't agree with TNAME.
6	QBLOCKNO doesn't agree with TNAME.
7	PAGE_RANGE is invalid.
8	PREFETCH is invalid.
9	METHOD is invalid.
10	SORTN_JOIN is invalid.
11	SORTC_JOIN is invalid.
12	ACCESSTYPE is invalid.
13	ACCESSCREATOR or ACCESSNAME is invalid.
14	TYPE 1 index can't be used with isolation level 'UR'.
15	Specified index can't be used as requested.
16	Multi-index access can't be done.
17	Invalid ACCESSTYPE combination.
18	METHOD specified for first table accessed.
19	Nested-loop join can't be done as requested.
20	Merge join can't be done as requested.
21	Hybrid join can't be done as requested.

- 22 PARALLELISM_MODE requested can't be done.
- 23 PARALLELISM_MODE is invalid.
- 24 ACCESS_DEGREE is invalid.
- 25 JOIN_DEGREE is invalid.
- 26 A table is missing.
- 27 A table is redundant.
- 28 PRIMARY_ACCESSTYPE is invalid.
- 29 ACCESS_PGROUPE_ID is not specified.
- 30 JOIN_PGROUPE_ID is not specified.
- 31 PARALLELISM_MODE is not specified.
- 32 CREATOR or TNAME is invalid.
- 33 Join sequence is incorrect.
- 34 Full outer join requires merge join method.
- 35 WHEN_OPTIMIZE is invalid or inconsistent.
- 99 Unexpected error.

System Action: The user-specified optimization hints are ignored. The access path is determined without the use of hints and processing continues normally.

Programmer Response: Correct the problem with the optimization hints, or disable their use for this query.

SQLSTATE: 01628

+402 LOCATION *location* IS UNKNOWN

Explanation: A remote object is referenced and either the table SYSIBM.LOCATIONS is not defined or the referenced 'location' matches no entry in the SYSIBM.LOCATIONS.LOCATION column.

System Action: For the CREATE ALIAS statement, the alias is created. For binding a plan or package with the VALIDATE(RUN) option, the plan or package is created.

SQLSTATE: 01521

+403 THE LOCAL OBJECT REFERENCED BY THE CREATE ALIAS STATEMENT DOES NOT EXIST

Explanation: The local object referenced by the CREATE ALIAS statement does not exist when creating the alias.

System Action: The alias is created.

SQLSTATE: 01522

+434 OPTION *keyword* IS A DEPRECATED FEATURE

Explanation: *keyword* is a deprecated feature that will not be supported in releases following DB2 Version 8. It is accepted, but continued use of this keyword is not recommended.

For indexes, use type 2 indexes rather than type 1 indexes to avoid any incompatibilities.

System Action: Processing continues normally.

Programmer Response: No change is required for the current release. However, you should change your SQL statement and remove this feature to prepare for future releases when this feature is not supported.

SQLSTATE: 01608

+445 VALUE *value* HAS BEEN TRUNCATED

Explanation: The value *value* was truncated by a cast function, which was called to transform the value in some way. This is a warning situation. The cast function is a result of

- a CAST specification
- a built-in function such as CHAR, VARCHAR, etc.
- a CAST FROM specification on the CREATE FUNCTION statement that created the function
- a user-defined function that is sourced on another function and the result needed to be transformed.

If 'value' has the 'for bit data' subtype, then the 'value' is printed as a hexadecimal string in quotes followed by an X.

System Action: The value has been truncated.

Programmer Response: Ensure that the output is as expected and that the truncation has not caused any unexpected consequences.

SQLSTATE: 01004

+462 EXTERNAL FUNCTION OR PROCEDURE *name* (SPECIFIC NAME *specific-name*) HAS RETURNED A WARNING SQLSTATE, WITH DIAGNOSTIC TEXT *text*

Explanation: An SQLSTATE of the form 01Hxx was returned to DB2 by user-defined function or procedure *name*, along with message text *text*.

System Action: Processing continues.

Programmer Response: See your database administrator, or the author of the function or procedure to find out the meaning of the warning. The significance of the bad SQLSTATE to the invoking application can be learned from the author of the function or procedure.

SQLSTATE: 01Hxx

+464 **PROCEDURE *proc* RETURNED *num*
QUERY RESULT SETS, WHICH
EXCEEDS THE DEFINED LIMIT *integer***

Explanation: The stored procedure named by *proc* completed normally. However, the stored procedure exceeded the defined limit on the number of query result sets the procedure can return.

- *num* identifies the number of query result sets returned by the stored procedure.
- *integer* identifies the defined limit on the number of query result sets for the stored procedure.

Only the first *integer* query result sets are returned to the SQL program that issued the SQL CALL statement.

The possible causes are as follows:

- The stored procedure is unable to return *num* result sets due to the limit defined for the procedure.
- The stored procedure is unable to return *num* result sets due to the DRDA limitations imposed by the client. The DRDA client establishes this limit with the MAXRSLCNT DDM code point.

System Action: The SQL statement is successful. The SQLWARN9 field is set to 'Z'.

SQLSTATE: 0100E

+466 **PROCEDURE *proc* RETURNED *num*
QUERY RESULTS SETS**

Explanation: The stored procedure named by *proc* completed normally. The procedure returned the number of SQL query result sets specified in *num*.

System Action: The SQL statement is successful. The SQLWARN9 field is set to 'Z'.

SQLSTATE: 0100C

+494 **NUMBER OF RESULT SETS IS
GREATER THAN NUMBER OF
LOCATORS**

Explanation: The number of result set locators specified on the ASSOCIATE LOCATORS statement is less than the number of result sets returned by the stored procedure. The first "n" result set locator values are returned, where "n" is the number of result set locator variables specified on the SQL statement.

System Action: The SQL statement is successful. The SQLWARN3 field is set to 'Z'.

Programmer Response: Increase the number of result set locator variables specified on the SQL statement.

SQLSTATE: 01614

+495 **ESTIMATED PROCESSOR COST OF
estimate-amount1 PROCESSOR
SECONDS (*estimate-amount2* SERVICE
UNITS) IN COST CATEGORY
cost-category EXCEEDS A RESOURCE
LIMIT WARNING THRESHOLD OF *limit-
amount* SERVICE UNITS**

Explanation: The prepare of a dynamic INSERT, UPDATE, DELETE, or SELECT SQL statement resulted in a cost estimate that exceeded the warning threshold value specified in the resource limit specification table (RLST). This warning is also issued if DB2's cost category value was "B", and the default action specified in the RLF_CATEGORY_B column in the RLST is to issue a warning.

estimate_amount1

The cost estimate (in processor seconds) if the prepared INSERT, UPDATE, DELETE or SELECT statement were to be executed.

estimate_amount2

The cost estimate (in service units) if the prepared INSERT, UPDATE, DELETE or SELECT statement were to be executed.

cost-category

DB2's cost-category for this SQL statement. The possible values are A or B.

limit-amount

The warning threshold (in service units) specified in the RLFASUWARN column of the RLST.

System Action: The prepare of the dynamic INSERT, UPDATE, DELETE, or SELECT statement was successful. An SQLCODE -905 might be issued if the execution of the prepared statement exceeds the ASUTIME value specified in the RLST.

Programmer Response: Ensure that there is application logic to handle the warning to either allow the statement to execute or to stop the statement from being executed. If this SQLCODE was returned because the cost category value is "B", it might be that the statement is using parameter markers or that some statistics are not available for the referenced tables and columns. Make sure the administrator has run the utility RUNSTATS on the referenced tables. It might also be that UDFs will be invoked when the statement is executed, or for INSERT, UPDATE, or DELETE statements that triggers are defined on the changed table. Check the DSN_STATEMNT_TABLE or the IFCID 22 record for this statement to find the reasons this SQL statement has been put in cost category "B".

User Response: If the warning is caused by an SQL statement that is consuming too much processor resource, attempt to rewrite the statement to perform more efficiently. Another option is to ask the administrator to increase the warning threshold value in the RLST.

SQLSTATE: 01616

+535 THE RESULT OF THE POSITIONED UPDATE OR DELETE MAY DEPEND ON THE ORDER OF THE ROWS

Explanation: A positioned update of a primary key or a delete from a table with a self-referencing constraint was requested.

System Action: DB2 executes the UPDATE or DELETE statement and the contents of the table are changed.

SQLSTATE: 01591

+541 THE REFERENTIAL OR UNIQUE CONSTRAINT *name* HAS BEEN IGNORED BECAUSE IT IS A DUPLICATE

Explanation: A FOREIGN KEY clause uses the same key and parent table as another FOREIGN KEY clause, or a UNIQUE clause uses the same column list as another UNIQUE or PRIMARY KEY clause. In either case, the duplicate clause is ignored.

name is either the foreign key name or the unique constraint name.

System Action: DB2 continues processing.

Programmer Response: If the duplication is an error, correct the statement and execute it again.

SQLSTATE: 01543

+551 *auth-id* DOES NOT HAVE THE PRIVILEGE TO PERFORM OPERATION *operation* ON OBJECT *object-name*

Explanation: Authorization ID *auth-id* has attempted to perform the specified *operation* on object *object-name* without having been granted the proper authority to do so. This error might also occur if the specified object does not exist, or if the object is a read-only view (for UPDATE or INSERT). Additionally, the error may occur if *auth-id* is trying to create a table or view with an authorization ID other than its own. You may create a table or view from an *auth-id* other than your own only if your authorization ID is SYSADM, DBADM, or DBCTRL.

If this error occurs while DB2 is creating or altering a table involving referential constraints, this code reports that the user does not have the necessary ALTER privilege to perform a FOREIGN KEY, DROP FOREIGN KEY, DROP PRIMARY KEY, or DROP UNIQUE operation. The *object-name* identifies the object table of the CREATE or ALTER TABLE statement, not the table for which the user lacks the ALTER privilege.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, ensure that *auth-id* has been granted the authority to perform the desired operation, that *object-name* exists, and that *auth-id* is not trying to create a table with a different authorization ID.

SQLSTATE: 01548

+552 *auth-id* DOES NOT HAVE THE PRIVILEGE TO PERFORM OPERATION *operation*

Explanation: Authorization ID 'auth-id' has attempted to perform the specified 'operation' without having been granted the authority to do so.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, ensure that the authorization-ID has been granted the authority necessary to perform the desired operation.

SQLSTATE: 01542

+558 THE WITH GRANT OPTION IS IGNORED

Explanation: The GRANT statement contained one of the following situations:

- PUBLIC was within the list of 'grantee' authorization IDs.
- BINDAGENT privilege was being granted.
- ANY package privilege on collection-id.* was being granted.

The WITH GRANT option may not be used in the above situations.

System Action: The offending privilege(s) in the authorization specification are granted without the GRANT option. If the grantee is PUBLIC, all the privileges in the authorization specification are granted without the GRANT option.

SQLSTATE: 01516

+561 THE ALTER, INDEX, REFERENCES, AND TRIGGER PRIVILEGES CANNOT BE GRANTED PUBLIC AT ALL LOCATIONS

Explanation: You specified a GRANT statement with either an ALL or ALL PRIVILEGES keyword. ALL and ALL PRIVILEGES imply the granting of ALTER, INDEX, REFERENCES, AND TRIGGER privileges that cannot be granted to a remote user.

System Action: DB2 executes the GRANT statement.

However, it does not grant the ALTER, INDEX, REFERENCES, or TRIGGER privileges to PUBLIC*.

SQLSTATE: 01523

+562 A GRANT OF A PRIVILEGE WAS IGNORED BECAUSE THE GRANTEE ALREADY HAS THE PRIVILEGE FROM THE GRANTOR

Explanation: At least one of the privileges in the GRANT statement was ignored because the privilege was already granted to the grantee by the grantor.

System Action: The privileges previously granted are ignored; all others are granted.

SQLSTATE: 01560

+585 THE COLLECTION *collection-id* APPEARS MORE THAN ONCE WHEN SETTING THE *special-register* SPECIAL REGISTER

Explanation: The SET statement for special register *special-register* includes *collection-id* more than once.

System Action: Duplicates are removed from the list, and the first occurrence of *collection-id* is used. The statement is executed.

Programmer Response: Verify the list that contains the duplicate. If the error is only in entering a *collection-id* incorrectly that happens to duplicate another entry, enter the *collection-id* correctly and reissue the statement. If the entry is intended to be a duplicate, no action is required.

SQLSTATE: 01625

+599 COMPARISON FUNCTIONS ARE NOT CREATED FOR A DISTINCT TYPE BASED ON A LONG STRING DATA TYPE

Explanation: Comparison functions are not created for a distinct type based on a long string data type (BLOB, CLOB, DBCLOB) since the corresponding function are not available for these built-in data types.

System Action: The statement is processed successfully.

Programmer Response: No action is required.

SQLSTATE: 01596

+610 A CREATE/ALTER ON OBJECT *object-name* HAS PLACED OBJECT IN *utility* PENDING

Explanation: The identified object is in one of the following states:

- REBUILD pending for an index

The index is in REBUILD PENDING status because CREATE INDEX with DEFER was specified on a populated table. The index is not generally available until the index is removed from the REBUILD pending state.

- REORG pending for a table space partition

The table space is in REORG pending because ALTER INDEX was used to change the limit key values. The table space partition is not generally available until the REORG pending status is removed.

- REORG pending for a table space

The table space is in REORG pending because ALTER TABLE was used to add an identity column to a populated table. The table space is not generally available until the REORG pending status is removed.

System Action: The object was placed in the indicated pending status.

Programmer Response: The following actions may be taken:

- For REBUILD pending on an index, use the REBUILD INDEX utility to rebuild the index and remove the REBUILD pending status.
- For REORG pending on a table space partition, perform the following steps:
 1. Issue a DISPLAY DATABASE command for the table space to identify which partitions are in REORG pending.
 2. Run the REORG utility on the partitions that are in REORG pending.
- For REORG pending on a table space, run the REORG utility on the table space.

SQLSTATE: 01566

+645 WHERE NOT NULL IS IGNORED BECAUSE THE INDEX KEY CANNOT CONTAIN NULL VALUES

Explanation: The WHERE NOT NULL clause is ignored on the CREATE INDEX statement because the index key is defined on columns that cannot contain null values.

System Action: The option is ignored; processing continues.

Programmer Response: Remove the WHERE NOT NULL clause to get rid of the warning.

SQLSTATE: 01528

+650 THE TABLE BEING CREATED OR ALTERED CANNOT BECOME A DEPENDENT TABLE

Explanation: This table is defined with the maximum number of columns. It cannot be altered to be a dependent table later.

System Action: The table is created. Check to see if the table will become a dependent table at a later time. If yes, drop and recreate the table with fewer than 750 columns.

SQLSTATE: 01538

+653 **TABLE *table-name* IN PARTITIONED TABLESPACE *t-space-name* IS NOT AVAILABLE BECAUSE ITS PARTITIONED INDEX HAS NOT BEEN CREATED**

Explanation: An attempt has been made to insert or manipulate data in or create a view on a partitioned table (that is, a table residing in a partitioned table space) before the partitioned index for that table has been created.

A table residing in a partitioned table space cannot be referenced in any SQL manipulative statement or a CREATE VIEW statement before the partitioned index for that table has been created.

System Action: A valid plan or package will be created if no errors are detected. The statement is bound dynamically on each execution of the statement.

Programmer Response: For better performance, rebind the plan or package after correcting the statement. To correct the statement, verify that the correct table was specified in the statement. If so, ensure that the partitioned index for the table has been created successfully before attempting to execute any SQL manipulative statements that reference that table.

SQLSTATE: 01551

+655 **STOGROUP *stogroup_name* HAS BOTH SPECIFIC AND NON-SPECIFIC VOLUME IDS. IT WILL NOT BE ALLOWED IN FUTURE RELEASES**

Explanation: The CREATE/ALTER STOGROUP statement has caused the STOGROUP with 'stogroup_name' to have both specific and non-specific (*) volume ids. This warning code is used to specify that the mixing of different types of volume ids will not be allowed in future releases.

System Action: DB2 continues processing.

Programmer Response: Plan to use either specific or non-specific volume ids to avoid future release migration impact. ALTER STOGROUP may be used to drop all specific volume ids or all non-specific volume ids.

SQLSTATE: 01597

+658 **THE SUBPAGES VALUE IS IGNORED FOR THE CATALOG INDEX *index-name***

Explanation: Only SUBPAGES 1 is allowed for this catalog index.

System Action: The index was altered successfully using SUBPAGES 1. If you are also altering the TYPE option to a new value, the index is placed in recovery pending status.

SQLSTATE: 01600

+738 **DEFINITION CHANGE OF *object* *object_name* MAY REQUIRE SIMILAR CHANGE ON READ-ONLY SYSTEMS**

Explanation: A change was made to the definition of the specified object that may also require a similar change to any read-only shared systems.

System Action: The statement is successfully executed.

Programmer Response: Check the read-only shared systems that have the specified object defined, and determine if a change must be made to the object on those systems.

SQLSTATE: 01530

+799 **A SET STATEMENT REFERENCES A SPECIAL REGISTER THAT DOES NOT EXIST AT THE SERVER SITE**

Explanation: A DB2 server received a SET statement that it does not understand.

System Action: The SET SPECIAL REGISTER request is ignored.

Programmer Response: This SQLCODE can be returned to an application for any SQL statement. This SQLCODE may be masked by other negative SQLCODEs that the SQL statement receives. Processing continues at the server.

SQLSTATE: 01527

+802 **EXCEPTION ERROR *exception-type* HAS OCCURRED DURING *operation-type* OPERATION ON *data-type* DATA, POSITION *position-number***

Explanation: The exception error *exception-type* occurred while doing an ADDITION, SUBTRACTION, MULTIPLICATION, DIVISION, NEGATION, or BUILT-IN FUNCTION operation on a field whose *data-type* is DECIMAL, FLOAT, SMALLINT, or INTEGER. The error occurred while processing an arithmetic expression in the SELECT list of an outer SELECT statement, and the position in the select list is denoted by *position-number*. The possible exception types are FIXED POINT OVERFLOW, DECIMAL OVERFLOW, DIVIDE EXCEPTION, EXPONENT OVERFLOW, ZERO DIVIDE, or OUT OF RANGE. The data type displayed in the message may indicate the data type of the temporary internal copy of the data, which may differ from the actual column or literal data type due to conversions by DB2.

A fixed point overflow can occur during any arithmetic operation on either INTEGER or SMALLINT fields.

A decimal overflow exception can occur when one or more nonzero digits are lost because the destination field in any decimal operation is too short to contain the result.

A divide exception can occur on a decimal division operation when the quotient exceeds the specified data-field size. A zero divide exception occurs on any division by zero.

An exponent overflow can occur when the result characteristic of any floating-point operation exceeds 127 and the result fraction is not zero, i.e. the magnitude of the result exceeds approximately 7.2E+75.

Any of the exceptions/overflows can occur during the processing of a built-in function. If the *operation-type* is FUNCTION then the error occurred while processing either an input, intermediate, or final value. The cause could be that the value of a parameter is *out of range*.

Note: Parts of *exception-type*, *data-type*, *operation-type*, and *position-number* may or may not be returned in SQLCA, depending upon when the error was detected.

System Action: For each expression in error the indicator variable is set to negative two (-2) to indicate a null value returned. The data variable is unchanged. Execution of the statement continues with all nonerror columns and expressions of the outer SELECT list being returned. If the statement is cursor controlled then the CURSOR will remain open.

Programmer Response: Examine the expression for which the warning occurred to see if the cause (or the likely cause) of the problem can be determined. The problem may be data-dependent, in which case it will be necessary to examine the data that was being processed at the time the error occurred.

See the explanation of SQLCODE -405 for allowed ranges of numeric data types.

SQLSTATE: 01519

+806 BIND ISOLATION LEVEL RR CONFLICTS WITH TABLESPACE LOCKSIZE PAGE OR LOCKSIZE ROW AND LOCKMAX 0

Explanation: The specification of isolation level RR is incompatible with the LOCKSIZE PAGE or LOCKSIZE ROW and LOCKMAX 0 specification for a table space accessed by the application. Table space locking is used to protect the integrity of the application.

System Action: A valid package/plan is created if no errors are detected. Table space locking is used. RR isolation level is preserved.

Programmer Response: If you do not want table

space locking, use isolation level UR, CS, or RS.

SQLSTATE: 01553

+807 THE RESULT OF DECIMAL MULTIPLICATION MAY CAUSE OVERFLOW

Explanation: An arithmetic expression contains a decimal multiplication that may cause an overflow condition when the statement is executed. The problem may be corrected by restructuring the arithmetic expression so that decimal multiplication precedes decimal division or by changing the precision and scale of the operands in the arithmetic expression. Refer to Chapter 2 of *DB2 SQL Reference* for the precision and scale of the decimal multiplication and division results.

System Action: A valid package will be created if no errors are detected.

SQLSTATE: 01554

+863 THE CONNECTION WAS SUCCESSFUL BUT ONLY SBCS WILL BE SUPPORTED

Explanation: The target AS supports only the DB2 SBCS CCSID. The DB2 Mixed CCSID or GRAPHIC CCSID or both are not supported by the target AS. DB2 character data sent to the target AS must be restricted to SBCS.

System Action: The CONNECT statement is successful. The release level of the target AS has been placed into the SQLERRP field of the SQLCA (see *DB2 SQL Reference* for the CONNECT statement).

Programmer Response: Do not execute any SQL statements which pass either mixed data or graphic data as input host variables.

SQLSTATE: 01539

+883 ROLLBACK TO SAVEPOINT OCCURED WHEN THERE WERE OPERATIONS THAT CANNOT BE UNDONE, OR AN OPERATION THAT CANNOT BE UNDONE OCCURRED WHEN THERE WAS A SAVEPOINT OUTSTANDING

Explanation: The operations that are referred to are updates (inserts into or deletes from) a created global temporary table. If this SQL warning code is received as the result of a ROLLBACK TO SAVEPOINT statement, the rollback is performed; however, the changes that were made to the temporary table are not undone. If this SQL warning code is received as the result of an operation to a created global temporary table, the operation is performed; however, be advised that a savepoint is outstanding, and the update will not be backed out if a rollback to the savepoint is performed.

System Action: The SQL statement is processed.

Programmer Response: Verify that this is what you meant.

SQLSTATE: 01640

+20002 THE GBPCACHE SPECIFICATION IS IGNORED, *bpname* DOES NOT ALLOW CACHING

Explanation: This message is issued in response to a CREATE or ALTER of a table space or index in which a buffer pool is named that corresponds to a group buffer pool that is defined with GBPCACHE NO. The corresponding group buffer pool is used only for cross-invalidation. It contains no data entries. All reads and writes are from and to DASD.

System Action: The statement is processed.

User Response: If you want to use one of the GBPCACHE options other than NONE, you must alter the table space or index to use a group buffer pool that is defined with GBPCACHE YES.

SQLSTATE: 01624

+20007 USE OF OPTIMIZATION HINTS IS DISALLOWED BY A DB2 SUBSYSTEM PARAMETER. THE SPECIAL REGISTER 'OPTIMIZATION HINT' IS SET TO THE DEFAULT VALUE OF BLANKS.

Explanation: DB2 is not enabled to use optimization hints. The special register OPTIMIZATION HINT is set to the default value of BLANKS.

System Action: Processing continues normally using the default OPTIMIZATION HINT value. The user-specified optimization hints are ignored. The access path is determined without the use of hints and processing continues normally.

Programmer Response: Enable the use of OPTIMIZATION HINT by changing the value of OPTIMIZATION HINTS on the DB2 Installation panel DSNTIP4.

If, after further consideration, you do not want to use an OPTIMIZATION HINT, change or remove the SET CURRENT OPTIMIZATION HINT statement.

SQLSTATE: 01602

+20122 DEFINE NO OPTION IS NOT APPLICABLE IN THE CONTEXT SPECIFIED

Explanation: The DEFINE NO option was specified, however it is not applicable in the context specified. DEFINE NO was specified in one of the following situations:

- a CREATE INDEX statement that included the VCAT clause
- a CREATE INDEX statement for a non-empty table

- a CREATE LOB TABLESPACE statement
- a CREATE TABLESPACE statement that included the VCAT clause

System Action: DB2 ignored the DEFINE NO option and created the object with the DEFINE YES option instead.

SQLSTATE: 01644

+20237 FETCH PRIOR ROWSET FOR CURSOR *cursor-name* RETURNED A PARTIAL ROWSET

Explanation: A FETCH PRIOR ROWSET statement was issued, but there were not enough rows prior to the current cursor position to reposition the cursor on a full rowset. The cursor has been positioned on a partial rowset. If a target was specified, then data has only been returned for the number of rows that were actually fetched for the partial rowset.

System Action: The cursor is positioned on a partial rowset.

Programmer Response: Analyze the situation to determine if anything should be rolled back.

SQLSTATE: 02504

+20141 TRUNCATION OF VALUE WITH LENGTH *length* OCCURRED FOR *hv-or-parm-number*

Explanation: A value that was assigned to a host variable or parameter was truncated. However, the length of the value that was truncated is too large to be returned in the indicator variable. This situation can occur when truncation occurs on assignment of:

- a value to a parameter of a remotored stored procedure if the value being truncated is greater than 127 bytes. In this case, the indicator variable will contain a value of 127.
- a LOB value to a host variable if the value being truncated is greater than 32K bytes. In this case, the indicator variable will contain a value of 32K.

In these cases, the actual length of the truncated value cannot be returned to the application that uses the indicator variable. The actual length of the value is returned as message token *length*.

System Action: The assignment was made, but the data was truncated.

Programmer Response: Change the declaration of *hv-or-parm-number* to avoid truncation.

SQLSTATE: 01004

+20245 NOT PADDED CLAUSE IS IGNORED FOR INDEXES CREATED ON AUXILIARY TABLES

Explanation: The NOT PADDED clause is ignored on the CREATE INDEX statement because auxiliary indexes are always PADDED.

System Action: The option is ignored; processing continues.

Programmer Response: Remove the NOT PADDED clause to avoid this warning.

SQLSTATE: 01663

+20270 OPTION NOT SPECIFIED FOLLOWING ALTER PARTITION CLAUSE

Explanation: An ALTER INDEX statement, which included the ALTER PARTITION clause, did not contain an option following the ALTER PARTITION keywords.

System Action: The SQL statement is processed.

Programmer Response: Specify a partition option after the ALTER PARTITION keywords to avoid this warning in the future. For an ALTER INDEX statement, if *partition-element* is specified, specify either the ENDING clause of:

- *partition-element*
- *using-block*
- *free-block*
- *gbcaches-block*

SQLSTATE: 01664

+20272 THE LAST PARTITION'S LIMIT KEY VALUE OF *old-limit-key-value* IS SET TO THE HIGHEST OR LOWEST POSSIBLE VALUE

Explanation: After one of the following statements was completed, the last partition's limit key value *old-limit-key-value* was set to the highest possible value for ascending index key columns, or lowest possible value for descending index key columns. These are the statements:

- CREATE PARTITIONED INDEX
- DROP INDEX for a partitioning index
- ALTER INDEX with the CLUSTER NO clause

The external limit key value in SYSTABLEPART.LIMITKEY has been changed to its highest or lowest possible value.

System Action: The statement is successfully executed.

SQLSTATE: 01666

+30100 OPERATION COMPLETED SUCCESSFULLY BUT A DISTRIBUTION PROTOCOL VIOLATION HAS BEEN DETECTED. ORIGINAL SQLCODE=*original-sqlcode* AND ORIGINAL SQLSTATE=*original-sqlstate*

Explanation: The application requested operation (either COMMIT or ROLLBACK) has completed successfully but the response from the remote server and the SQLCODE that was returned from the remote server are inconsistent. For example, the reply message from the remote server indicates that a COMMIT operation completed successfully but the SQLCODE returned from the AS was negative.

System Action: An alert was generated. A DSNL0311 message may have been written to the console. Refer to the description of this message for further information.

The SQLCODE returned by the remote server is replaced with +30100 and the SQLSTATE returned by the remote server is replaced with 01558.

The SQLCODE and SQLSTATE values that were returned from the AS are stored in the SQLERRM field in a string of the following format:

```
'original-sqlcode 'FF'X original-sqlstate'
```

Programmer Response: Notify the System Programmer for assistance in analyzing the trace data that was generated.

SQLSTATE: 01558

Error SQL codes

-007 STATEMENT CONTAINS THE ILLEGAL CHARACTER *character*

Explanation: The specified 'character' is not a valid character in SQL statements.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax and resubmit the statement. Refer to Chapter 2 of *DB2 SQL Reference* for information about the valid SQL character set.

SQLSTATE: 42601

-010 THE STRING CONSTANT BEGINNING string IS NOT TERMINATED

Explanation: The statement contains a string constant, beginning with 'string', that is not terminated properly.

System Action: The statement cannot be executed.

Programmer Response: Examine the statement for missing quotation marks or apostrophes in the indicated string constant.

SQLSTATE: 42603

-029 INTO CLAUSE REQUIRED

Explanation: SELECT statements embedded in an application program must have an INTO clause to denote where the results of the SELECT are to be placed. Dynamic SELECT statements do not permit the INTO clause.

System Action: The statement cannot be executed.

Programmer Response: Add the INTO clause to the SELECT statement and precompile the application program again.

SQLSTATE: 42601

-060 INVALID type SPECIFICATION : spec

Explanation: 'type' is either LENGTH or SCALE. 'spec' is the specified length or scale. Length or scale must be specified by an unsigned integer constant and the value must be in the range allowed by the data type.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement. Refer to Chapter 2 of *DB2 SQL Reference* for rules for length and scale.

SQLSTATE: 42815

-079 QUALIFIER FOR DECLARED GLOBAL TEMPORARY TABLE table-name MUST BE SESSION, NOT qualifier

Explanation: The qualifier for a declared temporary table must be SESSION. The DECLARE GLOBAL TEMPORARY TABLE statement defines a new temporary table named *table-name* with an explicit qualifier of *qualifier*. Specifying a qualifier other than SESSION is not allowed.

System Action: The statement was not executed.

Programmer Response: Change the statement in one of the following ways:

- Change the qualifier to SESSION.
- Remove the qualifier, and let DB2 default it to SESSION.

SQLSTATE: 428EK

-084 UNACCEPTABLE SQL STATEMENT

Explanation: This SQL statement is unacceptable to DB2. One of the following has occurred:

- An attempt has been made to PREPARE or EXECUTE IMMEDIATE an SQL statement that cannot be prepared; refer to the proper SQL statement in *DB2 SQL Reference*
- The embedded SQL statement is not an SQL statement supported by DB2.
- The statement referenced an undeclared cursor.
- An attempt was made to prepare an ALLOCATE CURSOR statement but the statement identifier is already associated with a declared cursor.

System Action: The statement cannot be executed.

Programmer Response: If the situation involves an SQL statement that cannot be prepared, the problem is in the source of the SQL statement, not the application program. Thus, no action is necessary unless the source of the SQL statement is the application program itself.

If the situation involves an SQL statement that is not supported by DB2, remove it from the application program and precompile again.

If the situation involves an invalid PREPARE of an ALLOCATE CURSOR statement, change the application program to use a statement identifier that is not associated with a declared cursor.

SQLSTATE: 42612

-096 VARIABLE *variable-name* DOES NOT EXIST OR IS NOT SUPPORTED BY THE SERVER AND A DEFAULT VALUE WAS NOT PROVIDED

Explanation: The GETVARIABLE function was invoked for variable *variable-name*. However, a value does not exist for a variable with that name, and a default value was not provided.

- If the qualifier is SESSION, a user-defined variable with name *variable-name* has not been set.
- If the qualifier is SYSIBM, the server does not support a built-in session variable with name *variable-name*.

System Action: The statement cannot be executed.

Programmer Response: Change the invocation of the function to specify a default variable for *variable-name*, or change the name of a variable that does exist.

SQLSTATE: 42704

-097 THE USE OF LONG VARCHAR OR LONG VARGRAPHIC IS NOT ALLOWED IN THIS CONTEXT

Explanation: The statement attempted to use the LONG VARCHAR or LONG VARGRAPHIC syntax. This syntax cannot be used for the following statements:

- CAST specification syntax
- CREATE DISTINCT TYPE
- CREATE FUNCTION
- CREATE PROCEDURE
- ALTER FUNCTION
- COMMENT ON FUNCTION
- GRANT EXECUTE ON FUNCTION
- REVOKE EXECUTE ON FUNCTION
- DROP

Use the VARCHAR or VARGRAPHIC syntax specifying an explicit length as required.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement.

SQLSTATE: 42601

-101 THE STATEMENT IS TOO LONG OR TOO COMPLEX

Explanation: DB2 cannot process the statement because it exceeds the system limits for length or complexity. Enabling parallelism will increase the complexity of the statement.

System Action: DB2 cannot process the statement.

Programmer Response: Divide the statement into shorter or less complex SQL statements.

If the statement enables parallelism, try disabling

parallelism. You may do this by using the DEGREE(1) bind option for static SQL, or by setting the CURRENT DEGREE special register to '1' for dynamic SQL.

SQLSTATE: 54001

-102 LITERAL STRING IS TOO LONG. STRING BEGINS *string*

Explanation: The string constant beginning with *string* has a length greater than the maximum allowed length. Most strings have these limits:

- For a hexadecimal constant (X, GX, or UX), the number of hexadecimal digits must not exceed 32704.
- Any other character string constant must be short enough so that its UTF-8 representation requires no more than 32704 bytes.
- Any other graphic string constant must be short enough so that its UTF-8 representation requires no more than 32698 bytes.

In some contexts, however, the limit is smaller; see the *DB2 SQL Reference* for the specific cases.

For special registers, the allowable length depends on the particular special register. A string that exceeds the limit can be specified only through assignment from a host variable. If this release of DB2 increases the maximum allowed length of a string constant, then an attempt to exploit the new length before using the New Function Mode produces this SQL return code.

Two consecutive string delimiters are used to represent one string delimiter within the character string, but these count as 2 bytes when calculating the lengths of character string constants.

System Action: The statement cannot be executed.

Programmer Response: The requested function is not available interactively. If the error occurred in the context of an SQL statement embedded in an application program, the desired result can be achieved by assigning the long string to a host variable, and substituting that variable for the string literal in the SQL statement.

SQLSTATE: 54002

-103 *literal* IS AN INVALID NUMERIC LITERAL

Explanation: The indicated 'literal' begins with a digit, but is not a valid integer, decimal, or float literal.

System Action: The statement cannot be executed.

Programmer Response: Correct the invalid literal.

SQLSTATE: 42604

-104 ILLEGAL SYMBOL "token". SOME SYMBOLS THAT MIGHT BE LEGAL ARE: token-list

Explanation: A syntax error was detected where the symbol "token" occurs in the SQL statement. The list of symbols that might be legal shows some alternate symbols that could possibly be correct at that point, if the preceding part of the statement is entirely correct.

However, the preceding part of the statement might be incorrect. For example, if an important keyword is omitted, DB2 detects the error later, and not always immediately after the point where the keyword should appear. The list of alternate symbols are only suggestions. Some of those symbols might not even be legal for statements to be executed by DB2. Those symbols are possibly correct for statements sent to other database management systems.

This SQL code will also be issued if the RELEASE TO SAVEPOINT statement is specified without a savepoint name.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement and execute it again.

SQLSTATE: 42601

-105 INVALID STRING

Explanation: The statement contains an invalid string. It is neither a character string nor a graphic string.

System Action: The statement cannot be executed.

Programmer Response: Specify the correct format of the string. Check for a graphic string, paired delimiters, the character G or N, and an even number of bytes within the string.

SQLSTATE: 42604

-107 THE NAME name IS TOO LONG. MAXIMUM ALLOWABLE SIZE IS size

Explanation: The name is too long. The maximum permissible length for names of that type is indicated by size. For each type of name, the DB2 SQL Reference lists the maximum allowed length. If this release of DB2 increases the maximum allowed length of a name, then an attempt to exploit the new length before using the New Function Mode produces this SQL return code.

System Action: The statement cannot be processed.

Programmer Response: Choose a shorter name for the object.

SQLSTATE: 42622

-108 THE NAME name IS QUALIFIED INCORRECTLY

Explanation: The name name is improperly qualified.

A target name on the RENAME statement may not have a qualifier.

System Action: The statement cannot be executed.

Programmer Response: Remove the qualifier and reissue the statement.

SQLSTATE: 42601

-109 clause CLAUSE IS NOT PERMITTED

Explanation: The indicated clause is not permitted in the context in which it appears in this SQL statement for the following reasons:

- A subselect cannot have an INTO clause.
- A CREATE VIEW statement cannot have INTO, ORDER BY, or FOR UPDATE clauses.
- An embedded SELECT statement cannot have ORDER BY or FOR UPDATE clauses
- SELECT statements used in cursor declarations cannot have an INTO clause.
- A RAISE_ERROR function can only be used as a select list item if it is cast to some data type using the CAST specification.
- DESCRIBE INPUT statement can not have USING clause.
- QUERYNO cannot be specified as part of an EXPLAIN statement when the EXPLAIN statement contains an 'explainable-sql-statement'.
- The table being updated in a POSITIONED UPDATE statement cannot be assigned a correlation name.
- INPUT SEQUENCE cannot be specified if the table-spec is not included in a select-statement that contains an INSERT statement.
- A SET DATA TYPE clause cannot be specified on ALTER TABLE for an identity column.

If the clause is part of a CREATE INDEX, CREATE TABLE, CREATE TABLESPACE or ALTER TABLESPACE statement, see the appropriate section of the SQL Reference for a description of the valid use of clauses for the statement.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement.

SQLSTATE: 42601

-110 INVALID HEXADECIMAL LITERAL BEGINNING string

Explanation: The string constant that begins with the specified string is invalid because it has at least one of the following errors:

- the string constant contains one or more characters that are not valid hexadecimal digits
- the string constant does not have an even number of digits
- for a UX or GX string constant, the number of digits is not a multiple of 4

System Action: The statement cannot be executed.

Programmer Response: Correct the invalid string constant.

SQLSTATE: 42606

-111 AN AGGREGATE FUNCTION DOES NOT INCLUDE A COLUMN NAME

Explanation: The specification of an aggregate function (for example: AVG, MAX, MIN, or SUM) was invalid because such functions must include a column name in the operand. In a trigger definition, a transition variable specification does not qualify as a column name for this purpose.

This message is still issued with Version 8 prior to New Function Mode.

System Action: The statement cannot be executed.

Programmer Response: A column name must be specified as an operand to the function. Refer to Chapter 3 of *DB2 SQL Reference* for information about the proper usage of aggregate functions.

SQLSTATE: 42901

-112 THE OPERAND OF A AGGREGATE FUNCTION INCLUDES AN AGGREGATE FUNCTION OR A SCALAR FULLSELECT

Explanation: The operand of an aggregate function can be either an expression or DISTINCT followed by an expression. The operand cannot be another aggregate function or a scalar fullselect.

System Action: The statement cannot be executed.

Programmer Response: Correct the function specification. Refer to Chapter 3 of *DB2 SQL Reference* for information about the proper usage of aggregate functions.

SQLSTATE: 42607

-113 INVALID CHARACTER FOUND IN: string, REASON CODE nnn

Explanation: The *string* contains an invalid character. It can be an SQL ordinary identifier name, a host variable name, or a DBCS comment.

For SBCS SQL ordinary identifiers, names of buffer pools, databases, plans, and storage groups must contain only uppercase alphabetic or national

characters and numerics when CHARSET is KATAKANA; the first character must be alphabetic or national.

In some cases, the name of an SQL procedure can contain an underscore character. Please see the *DB2 SQL Reference* for more information.

The following reason codes apply to SBCS identifiers:

000 An invalid character was found in the SBCS identifier (including the case in which a DBCS identifier was used where only an SBCS identifier is allowed.)

The following reason codes apply to DBCS identifiers or comments:

101 An odd number of bytes exists between the shift-out and the shift-in character.

102 Either a shift-in or shift-out character is missing.

103 DBCS blanks X'4040' are not allowed.

104 There are no characters between the shift-out and the shift-in characters.

105 Shift-out cannot be the first byte of the DBCS character between the shift-out and the shift-in characters.

System Action: Processing is terminated.

User Response: Correct the name.

SQLSTATE: 42602

-114 THE LOCATION NAME *location* DOES NOT MATCH THE CURRENT SERVER

Explanation: A 3-part SQL procedure name was provided for one of the following SQL statements:

```
ASSOCIATE LOCATORS
CALL
DESCRIBE PROCEDURE
```

The first part of the SQL procedure name, which specifies the location where the stored procedure resides, did not match the value of the SQL CURRENT SERVER special register.

System Action: The statement cannot be executed.

Programmer Response: Take one of these actions to resolve the mismatch:

- Change the location qualifier to match the CURRENT SERVER special register.
- Issue an SQL CONNECT to the location where the stored procedure resides before issuing the SQL statement. Ensure that the SQL CALL statement is issued before the ASSOCIATE LOCATORS or DESCRIBE PROCEDURE.
- Bind the package containing the 3-part SQL procedure name with the BIND option

DBPROTOCOL(DRDA). With this option, DB2 implicitly uses the DRDA protocol for remote access to the stored procedure.

- Correct the statements so that the exact syntax used to specify the procedure name on the CALL statement be the same as that on the ASSOCIATE LOCATOR and/or DESCRIBE PROCEDURE. If an unqualified name is used to CALL the procedure, the 1-part name must also be used on the other statements. If the CALL statement is made with a 3-part name, and the current server is the same as the location in the 3-part name, the ASSOCIATE LOCATOR or DESCRIBE procedure can omit the location.

SQLSTATE: 42961

-115 A PREDICATE IS INVALID BECAUSE THE COMPARISON OPERATOR *operator* IS FOLLOWED BY A PARENTHESIZED LIST OR BY ANY OR ALL WITHOUT A SUBQUERY

Explanation: A simple comparison like '>' must not be followed by a list of items. ANY and ALL comparisons must be followed by a subselect, rather than an expression or a list of items.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement. Refer to Chapter 5 of *DB2 SQL Reference* for information about the syntax of SQL statements.

SQLSTATE: 42601

-117 THE NUMBER OF VALUES ASSIGNED IS NOT THE SAME AS THE NUMBER OF SPECIFIED OR IMPLIED COLUMNS

Explanation: The number of insert values in the value list of the INSERT statement is not the same as the number of object columns specified. Alternatively, the number of values on the right side of an assignment in a SET assignment statement or the SET clause of an UPDATE statement does not match the number of columns on the left side.

System Action: The statement cannot be executed. No data was inserted into the object table.

Programmer Response: Correct the statement to specify one and only one value for each of the specified object columns.

SQLSTATE: 42802

-118 THE OBJECT TABLE OR VIEW OF THE DELETE OR UPDATE STATEMENT IS ALSO IDENTIFIED IN A FROM CLAUSE

Explanation: The table or view specified as the object of a DELETE or UPDATE statement also appears in the FROM clause of a subselect within the statement.

The table or view that is the object of a UPDATE or DELETE cannot also be used to supply the values to be inserted or to qualify the rows to be updated or deleted.

System Action: The statement cannot be executed. No data was updated or deleted.

Programmer Response: The implied function is not supported by DB2. It may be possible to obtain the desired result by creating a temporary copy of the object table or view and addressing the subselect to that copy. Refer to Chapter 5 of *DB2 SQL Reference* for information about the syntax of SQL statements.

SQLSTATE: 42902

-119 A COLUMN IDENTIFIED IN A HAVING CLAUSE IS NOT INCLUDED IN THE GROUP BY CLAUSE

Explanation: A column identified in a HAVING clause (possibly within a scalar function) does not appear in the GROUP BY clause. Columns specified in a HAVING clause must appear within aggregate functions or also be specified in the GROUP BY clause.

Grouping expressions can be used in a search condition in a HAVING clause. A grouping expression specifies only one value for each group. A grouping expression specified in this context must exactly match a grouping expression specified in the GROUP BY clause, except that blanks are not significant.

System Action: The statement cannot be executed.

Programmer Response: The implied function is not supported by DB2. Refer to Chapter 4 of *DB2 SQL Reference* for information about the proper usage of HAVING and GROUP BY clauses.

SQLSTATE: 42803

-120 AN AGGREGATE FUNCTION IS NOT VALID IN THE CONTEXT IN WHICH IT WAS INVOKED

Explanation: An aggregate function or a user-defined function that is sourced on an aggregate function is not permitted in a SET clause, VALUES clause, SET host-variable statement, SET transition-variable statement, assignment statement, or as the expression of a RETURN statement. An aggregate function or a user-defined function that is sourced on an aggregate function is allowed in a WHERE clause only if the WHERE clause appears within a subquery of a HAVING clause.

System Action: The statement cannot be executed.

Programmer Response: The implied function is not supported by DB2. Refer to Chapter 4 of *DB2 SQL Reference* for information about restrictions on operands that can be specified within a WHERE clause, SET clause, VALUES clause, SET host-variable statement, SET transition-variable statement, assignment

statement, or as the expression of a RETURN statement.

SQLSTATE: 42903

-121 THE COLUMN *name* IS IDENTIFIED MORE THAN ONCE IN THE INSERT OR UPDATE OR SET TRANSITION VARIABLE STATEMENT

Explanation: The same column 'name' is specified more than once, either in the list of object columns of an INSERT statement, in the SET clause of an UPDATE statement, or in a SET transition variable statement.

System Action: The statement cannot be executed. No data was inserted or updated in the object table.

Programmer Response: Correct the syntax of the statement so that each column name is specified only once.

SQLSTATE: 42701

-122 A SELECT STATEMENT WITH NO GROUP BY CLAUSE CONTAINS A COLUMN NAME AND AN AGGREGATE FUNCTION IN THE SELECT CLAUSE OR A COLUMN NAME IS CONTAINED IN THE SELECT CLAUSE BUT NOT IN THE GROUP BY CLAUSE

Explanation: The SELECT statement contains one of these errors:

- The statement contains a column name and an aggregate function in the SELECT clause, but no GROUP BY clause.
- A column name is contained in the SELECT clause (possibly within a scalar function) but not in the GROUP BY clause. Grouping expressions can be used in a SELECT list. A grouping expression specifies only one value for each group. A grouping expression that is specified in this context must exactly match a grouping expression that is specified in the GROUP BY clause, except that blanks are not significant.

Note: A HAVING clause specified without a GROUP BY clause implies a GROUP BY with no columns. Thus, no column names are allowed in the SELECT clause.

- A *sort-key-expression* was specified in the ORDER BY clause, the result table contains grouped data, but the *select-clause* and ORDER BY clause contain a mixture of grouped data and non-grouped data. Grouping expressions can be used in a *sort-key-expression* of an ORDER BY clause.. A grouping expression specifies only one value for each group. A grouping expression that is specified in this context must exactly match a grouping expression that is specified in the GROUP BY clause, except that blanks are not significant.

System Action: The statement cannot be executed.

Programmer Response: You can correct the statement by:

- including the columns in the GROUP BY clause that are in the SELECT clause, or
- removing the columns from the SELECT clause.

Refer to Chapter 4 of *DB2 SQL Reference* for information about the use of GROUP BY clauses in SQL statements.

SQLSTATE: 42803

-123 THE PARAMETER IN POSITION *n* IN THE FUNCTION *name* MUST BE A CONSTANT OR KEYWORD

Explanation: The parameter in position *n* in the function *name* is not a constant when it is required to be a constant or a keyword when it is required to be a keyword.

System Action: The statement could not be processed.

Programmer Response: Action: Ensure that each argument of the function conforms to the definition of the corresponding parameter.

SQLSTATE: 42601

-125 AN INTEGER IN THE ORDER BY CLAUSE DOES NOT IDENTIFY A COLUMN OF THE RESULT

Explanation: The ORDER BY clause in the statement contains a column number that is either less than one, or greater than the number of columns of the result table (the number of items in the SELECT clause).

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax of the ORDER BY clause such that each column identifier properly denotes a column of the result table.

SQLSTATE: 42805

-126 THE SELECT STATEMENT CONTAINS BOTH AN UPDATE CLAUSE AND AN ORDER BY CLAUSE

Explanation: The SELECT statement in the declaration for a cursor contains both an UPDATE clause and an ORDER BY clause. Unless you use a scrollable cursor, an ORDER BY clause cannot be specified in the declaration for a cursor that is to be used for UPDATE.

System Action: The statement cannot be processed. The cursor remains undefined in the application program.

Programmer Response: The implied function is not

supported by DB2. A cursor that is to be used for update cannot be defined to fetch the rows of the object table in a specific order.

Refer to Chapter 4 of *DB2 SQL Reference* for information about restrictions on the declarations for cursors to be used for update.

SQLSTATE: 42829

**-127 DISTINCT IS SPECIFIED MORE THAN
ONCE IN A SUBSELECT**

Explanation: The DISTINCT qualifier can be used only once in a SELECT statement or a subselect.

Note: This message is still issued with Version 8 prior to New Function Mode.

System Action: The statement cannot be executed.

Programmer Response: The implied function is not supported by DB2. Refer to Chapter 4 of *DB2 SQL Reference* for information about restriction on the use of the DISTINCT qualifier.

SQLSTATE: 42905

**-128 INVALID USE OF NULL IN A
PREDICATE**

Explanation: The use of NULL in the search condition does not conform to the rules of SQL syntax.

System Action: The statement cannot be executed.

Programmer Response: The implied function is not supported by DB2. Refer to Chapter 2 of *DB2 SQL Reference* for information about the proper use of the NULL operand.

SQLSTATE: 42601

**-129 THE STATEMENT CONTAINS TOO
MANY TABLE NAMES**

Explanation: A subselect (including all subqueries) can have a maximum of 225 references to table names.

System Action: The statement cannot be executed.

Programmer Response: Break the SQL statement into two or more simpler statements with less than 225 table references in each. The count will include the number of base table occurrences from each table or view on the FROM list. Refer to Chapter 4 of *DB2 SQL Reference* for the definition of a subselect.

SQLSTATE: 54004

**-130 THE ESCAPE CLAUSE CONSISTS OF
MORE THAN ONE CHARACTER, OR
THE STRING PATTERN CONTAINS AN
INVALID OCCURRENCE OF THE
ESCAPE CHARACTER**

Explanation: The ESCAPE character must be a single character, either SBCS or DBCS as appropriate. For 'column-name LIKE pattern', the ESCAPE character can only appear in the character string if it is followed by itself, %, or _ (underscore). The Escape Clause cannot be specified if the column name at the left of the LIKE or NOT LIKE has the MIXED subtype.

System Action: The statement cannot be executed.

Programmer Response: Correct the string pattern, or choose a different ESCAPE character and change the pattern accordingly, or eliminate the use of the Escape Clause on the LIKE or NOT LIKE predicate where the column name to the left has the MIXED subtype.

SQLSTATE: 22019 if other than invalid ESCAPE pattern. 22025 if invalid ESCAPE pattern.

**-131 STATEMENT WITH LIKE PREDICATE
HAS INCOMPATIBLE DATA TYPES**

Explanation: If the column name at the left of LIKE or NOT LIKE is of type character, the expression at the right and the ESCAPE character must be of type character. If the column name is of type graphic, the expression at the right and the ESCAPE character must be of type graphic.

System Action: The statement cannot be executed.

Programmer Response: Check the data type of every operand.

SQLSTATE: 42818

-132 AN OPERAND OF *value* IS NOT VALID

Explanation: The operation value can be the LIKE predicate, the ESCAPE clause, the LOCATE scalar function, or the POSSTR scalar function. The operand or argument of *value* was not valid for one of the following reasons:

- The match-expression operand of a LIKE or NOT LIKE predicate must be a string expression.
- The pattern-expression operand of the LIKE or NOT LIKE predicate, or search-string argument of the LOCATE or POSSTR function must be a string expression that can be specified by any one of the following:
 - A constant
 - A special register
 - A host variable (including a LOB locator variable)
 - A scalar function whose arguments are any of the above (though nested function invocations cannot be used)

- A CAST specification whose arguments are any of the above
- An expression that concatenates (using CONCAT or ||) any of the above
- The source-string argument of the LOCATE or POSSTR function must be a string expression that can be specified by any of the following:
 - A constant
 - A special register
 - A host variable (including a LOB locator variable)
 - A scalar function whose arguments are any of the above (though nested function invocations cannot be used)
 - A CAST specification whose arguments are any of the above
 - A column name
 - An expression that concatenates (using CONCAT or ||) any of the above
- The escape-expression operand of the LIKE or NOT LIKE predicate must be a string expression that can be specified by any of the following:
 - A constant
 - A host variable (including a LOB locator variable)
 - A scalar function whose arguments are any of the above (though nested function invocations cannot be used)
 - A CAST specification whose arguments are any of the above

See the *DB2 SQL Reference* for the rules of what can be specified in each context.

A LIKE predicate, ESCAPE clause, LOCATE scalar function or POSSTR scalar function cannot be used with DATE, TIME, or TIMESTAMP.

System Action: The statement cannot be processed.

Programmer Response: Check and correct the syntax of the LIKE predicate, or LOCATE or POSSTR scalar function.

SQLSTATE: 42824

-133 AN AGGREGATE FUNCTION IN A SUBQUERY OF A HAVING CLAUSE IS INVALID BECAUSE ALL COLUMN REFERENCES IN ITS ARGUMENT ARE NOT CORRELATED TO THE GROUP BY RESULT THAT THE HAVING CLAUSE IS APPLIED TO

Explanation: If an aggregate function has a correlated column reference, it must be correlated from within a HAVING clause to the GROUP BY result that the HAVING clause is applied to. All column references in the argument must satisfy this condition.

System Action: The statement cannot be executed.

Programmer Response: Refer to Chapter 4 of *DB2 SQL Reference* for information about restrictions on the syntax of the HAVING clause.

SQLSTATE: 42906

-134 IMPROPER USE OF LONG STRING COLUMN OR AN EXPRESSION THAT RESOLVES TO A LONG STRING *name*

Explanation: The SQL statement references a long string, but DB2 does not allow the use of long strings in the context that was specified.

System Action: DB2 cannot process the statement.

Note: The *column-name* might not be returned in the SQLCA, depending on the nature of the error and the syntax in which it occurred.

Programmer Response: DB2 does not support the requested operation on a long string value. Refer to Chapter 2 of *DB2 SQL Reference* for information about restrictions on the specification and manipulation of long string values.

SQLSTATE: 42907

-136 SORT CANNOT BE EXECUTED BECAUSE THE SORT KEY LENGTH IS GREATER THAN 16000 BYTES

Explanation: A sort key is derived from the list of columns specified following a DISTINCT qualifier, or in an ORDER BY or GROUP BY clause. If both a DISTINCT qualifier and an ORDER BY or GROUP BY clause are present, the sort key is derived from the combination of both lists of columns.

The *internal* length of the sort key cannot exceed 16000 bytes. In attempting to process the SQL statement, the internal length of the sort key derived from the DISTINCT and/or ORDER BY or GROUP BY specifications was found to exceed that maximum limit.

System Action: The statement cannot be executed.

Programmer Response: The statement must be modified such that the internal length of the sort key will not exceed the maximum limit. In general, this means that one or more column names must be deleted from the ORDER BY or GROUP BY clause, or the list following the DISTINCT qualifier.

SQLSTATE: 54005

-137 THE LENGTH RESULTING FROM *operation* IS GREATER THAN *maximum-length*

Explanation: The length of the result of concatenation or a function exceeds the defined maximum. The operation that resulted in the error is *operation*.

- For concatenation, the length cannot exceed 32,764 (if character operands) or 16,382 (if graphic operands).
- For other functions, see *DB2 SQL Reference* for the maximum result length.

System Action: The statement cannot be executed.

Programmer Response: Ensure that the length of the result does not exceed the defined maximum.

SQLSTATE: 54006

-138 THE SECOND OR THIRD ARGUMENT OF THE SUBSTR FUNCTION IS OUT OF RANGE

Explanation: One of the following conditions exists:

- The second argument of the SUBSTR function is less than 1 or greater than M.
- The third argument of the SUBSTR function is an integer constant 0 or an expression whose value is less than 0 or greater than M-N+1.

M is the length of the first argument, if it is of fixed-length, or M is the maximum length of the first argument, if it is of varying-length. N is the value of the second argument.

System Action: The statement cannot be executed.

Programmer Response: Ensure that the second and third arguments of the SUBSTR function have legal values according to the above rules.

SQLSTATE: 22011

-142 THE SQL STATEMENT IS NOT SUPPORTED

Explanation: An SQL statement was detected that is not supported by the database. The statement might be valid for other IBM relational database products or it might be valid in another context. For example, statements such as VALUES and SIGNAL SQLSTATE can appear only inside a trigger. The SQLCODE is also issued if a DB2 private protocol application uses SQL statements that were added after Version 7. DB2 limits the SQL statements that a DB2 private protocol application can use to Version 7 or earlier SQL statements. See Part 4 of *DB2 Application Programming and SQL Guide* for more information.

Additionally, This SQL code will also be issued if a distributed private protocol application uses SQL statements that were implemented after Version 7. DB2 limits the SQL statements that a distributed private protocol application can use to Version 7 or lower SQL statements. Please see "MOVING FROM DB2 PRIVATE PROTOCOL ACCESS TO DRDA ACCESS" in *DB2 Application Programming and SQL Guide* for more information.

System Action: The statement cannot be executed.

Programmer Response: Change the syntax of the SQL statement or remove the statement from the program.

SQLSTATE: 42612

-144 INVALID SECTION NUMBER *number*

Explanation: One of the following:

1. The user attempted to execute an invalid section.
2. This release of DB2 does not support the SQL statement.
3. The section number in the call parameter list is one of these:
 - Negative
 - An invalid duplicate
 - Greater than the maximum section number of the DBRM or package.

System Action: The statement is not executed.

Programmer Response: For case 1: If you are executing a package that was bound with SQLERROR(CONTINUE), determine whether the statement in question was bound as a valid section. You can use the following statements to query the DB2 catalog:

```
SELECT SQLERROR
FROM SYSIBM.SYSPACKAGE
WHERE COLLID = collection-id AND
NAME = package-id AND
VERSION = version-name;
```

If that query returns 'C', the package was bound with SQLERROR(CONTINUE).

```
SELECT STMTNO, TEXT
FROM SYSIBM.SYSPACKSTMT
WHERE COLLID = collection-id AND
NAME = package-id AND
VERSION = version-name AND
SECTNO = number AND
BINDERROR = 'Y';
```

If that query returns any rows, the section is invalid. Refer to the error messages issued during the bind to determine the cause. Correct any errors and bind the package again, using the REPLACE option.

For case 2: If the DB2 system has fallen back to a previous release, determine whether there are any SQL statements with a section number of zero that are not supported by that release. You can use the following statements to query the DB2 catalog.

When executing from a DBRM, use:

```
SELECT *
FROM SYSIBM.SYSSTMT
WHERE SECTNO = 0
ORDER BY NAME, PLNAME, STMTNO, SEQNO;
```

When executing from a package, use:


```
SELECT *
FROM SYSIBM.SYSPACKSTMT
WHERE SECTNO = 0
ORDER BY COLLID, NAME, VERSION, STMTNO, SEQNO;
```

For case 3: Examine the application to determine whether the call parameter list was changed in some way. In general, you should not attempt to change the output of the precompiler.

SQLSTATE: 58003

-147 ALTER FUNCTION *function-name* FAILED BECAUSE SOURCE FUNCTIONS CANNOT BE ALTERED

Explanation: The function cannot be altered because it is a source function. Only external scalar functions, or external table functions can be altered.

To change an existing source function, you must DROP the function and recreate it.

System Action: The statement cannot be executed.

Programmer Response: Change the statement to refer to a function that can be altered, or recreate the function by dropping it and then creating a new version of it.

SQLSTATE: 42809

-148 THE SOURCE TABLE *source-name* CANNOT BE RENAMED OR ALTERED

Explanation: Possible cases:

- 1 The RENAME statement cannot be used to rename a view, an active RLST table, or a table for which a synonym is defined.
- 2 The ALTER statement cannot be used to alter the length of the column because the column is referenced in a referential integrity relation, a user exit (field procedure, edit procedure, valid procedure, stored procedure or user defined function), a global temporary table, or a table defined with data capture changes. If the table name specified in the alter is a view or if there exists a row in SYSVIEWWDEP that has *source-name* as a base table name, then this ALTER statement will fail.

System Action: The statement cannot be executed.

Programmer Response: For case:

- 1 Drop all views, inactivate the RLST table, or drop the synonym.
- 2 Avoid referential integrity relations, user exits, or global temporary tables.
- 3 Run REORG INDEX, REORG TABLESPACE, or REBUILD INDEX. If the index is partitioned, then run the utility on all the partitions. Reissue the statement.

SQLSTATE: 42809

-150 THE OBJECT OF THE INSERT, DELETE, OR UPDATE STATEMENT IS A VIEW, SYSTEM-MAINTAINED MATERIALIZED QUERY TABLE, OR TRANSITION TABLE FOR WHICH THE REQUESTED OPERATION IS NOT PERMITTED

Explanation: One of the following occurred:

- A transition table was named in an INSERT, UPDATE, or DELETE statement in a triggered action. Transition tables are read-only.

The view named in the INSERT, UPDATE, or DELETE statement is defined in such a way that the requested insert, update, or delete operation cannot be performed upon it.

Inserts into a view are prohibited if:

- The view definition contains a join, a GROUP BY, or a HAVING clause.
- The SELECT clause in the view definition contains the DISTINCT qualifier, an arithmetic expression, a string expression, a built-in function, or a constant.
- Two or more columns of the view are derived from the same column.
- A base table of the view contains a column that does not have a default value and is not included in the view.

Updates to a view are prohibited if:

- The view definition contains a join, a GROUP BY, or a HAVING clause.
- The SELECT clause in the view definition contains the DISTINCT qualifier or a function.

Also, a given column in a view cannot be updated (that is, the values in that column cannot be updated) if the column is derived from an arithmetic expression, a constant, a column that is part of the key of a partitioned index, or a column of a catalog table that cannot be updated.

Deletes against a view are prohibited if:

- The view definition contains a join, a GROUP BY, or a HAVING clause.
- The SELECT clause in the view definition contains the DISTINCT qualifier or a built-in function.

- A system-maintained materialized query table was named in an INSERT, UPDATE, or DELETE statement. System-maintained materialized query tables are refreshed using the REFRESH TABLE statement.

System Action: The statement cannot be executed. No data was inserted, updated, or deleted.

Programmer Response: The requested function cannot be performed on the view. Refer to Chapter 5 of *DB2 SQL Reference* for further information regarding inserting, deleting, and updating views.

If the error occurred on a CREATE TRIGGER statement, remove the INSERT, UPDATE, or DELETE reference to the transition table.

If the table is a system-maintained materialized query table, the requested function cannot be performed on that table. Refer to the description of the REFRESH TABLE statement in Chapter 5 of .

SQLSTATE: 42807

-151 THE UPDATE STATEMENT IS INVALID BECAUSE THE CATALOG DESCRIPTION OF COLUMN *column-name* INDICATES THAT IT CANNOT BE UPDATED

Explanation: The specified column cannot be updated for one of the following reasons:

- The values for columns occurring in the partitioning key of a partitioned table cannot be updated.
- The object table is a view and the specified column is defined (in the definition of the view) in such a way that it cannot be updated.
- The object table is a catalog table with no columns that can be updated.
- The object column is a ROWID column.
- The object column is defined with the AS IDENTITY and GENERATED ALWAYS attributes.
- The specified column of catalog tables cannot be updated because the column itself is not updatable.

Individual columns in a view cannot be updated for one of the following reasons:

- The column is derived from an SQL function, an arithmetic expression, or a constant.
- The column is defined for a column of an underlying view that cannot be updated.
- The column is defined for a read-only view.
- The column is defined for a column that is in the partitioning key of a partitioned table.

System Action: The statement cannot be executed. No data was updated in the object table or view.

Programmer Response: The requested function is not supported by DB2. Refer to the description of the UPDATE statement in Chapter 5 of *DB2 SQL Reference* for information about restrictions on the ability to update ROWID columns, identity columns, and columns in partitioned tables and views.

SQLSTATE: 42808

-152 THE DROP *clause* CLAUSE IN THE ALTER STATEMENT IS INVALID BECAUSE *constraint-name* IS A *constraint-type*

Explanation: The DROP *clause* of an ALTER TABLE statement tried to drop a constraint that does not match the *constraint-type* in the DROP clause. *clause* must identify an appropriate *constraint-type* as follows:

REFERENTIAL CONSTRAINT

The identified constraint must be a referential constraint.

CHECK CONSTRAINT

The identified constraint must be a check constraint.

PRIMARY KEY CONSTRAINT

The identified constraint must be a primary key constraint.

UNIQUE KEY CONSTRAINT

The identified constraint must be a unique key constraint.

System Action: The ALTER TABLE DROP statement cannot be executed. No object was dropped.

Programmer Response: Drop the existing object with the correct DROP clause of the ALTER TABLE statement.

SQLSTATE: 42809

-153 THE STATEMENT IS INVALID BECAUSE THE VIEW OR TABLE DEFINITION DOES NOT INCLUDE A UNIQUE NAME FOR EACH COLUMN

Explanation: You must specify a list of column names if the result table of the fullselect that is specified in the CREATE VIEW, CREATE TABLE, or DECLARE GLOBAL TEMPORARY TABLE statement has duplicate column names or an unnamed column (a column from a constant, function, or expression).

System Action: The statement cannot be executed. The specified view or table was not created, or the declared temporary table was not declared.

Programmer Response: Correct the statement by providing a list of names for the columns of the view or table. Refer to Chapter 5 of *DB2 SQL Reference* for information about the syntax of the CREATE VIEW statement, the CREATE TABLE statement, or the DECLARE GLOBAL TEMPORARY TABLE statement.

SQLSTATE: 42908

-154 THE STATEMENT FAILED BECAUSE VIEW OR TABLE DEFINITION IS NOT VALID

Explanation: The view defined in the CREATE VIEW statement, the table defined in the CREATE TABLE statement, or the table declared in the DECLARE GLOBAL TEMPORARY TABLE statement is not valid because the view or table definition references a remote object.

System Action: The statement cannot be executed. The specified object is not defined.

Programmer Response: Refer to Chapter 5 of *DB2 SQL Reference* for information about restrictions on the definitions for views, materialized query tables, or declared temporary tables.

SQLSTATE: 42909

-156 THE STATEMENT DOES NOT IDENTIFY A TABLE

Explanation: The statements ALTER TABLE, DROP TABLE, LOCK TABLE, CREATE INDEX, and CREATE TRIGGER apply only to tables. Indexes and triggers can be defined only on tables.

System Action: The statement cannot be executed. The specified view or remote object was not altered, dropped, or locked, or the index or trigger was not created.

Programmer Response: Verify that the proper name was specified in the statement.

SQLSTATE: 42809

-157 ONLY A TABLE NAME CAN BE SPECIFIED IN A FOREIGN KEY CLAUSE. *object-name* IS NOT THE NAME OF A TABLE.

Explanation: The indicated object was identified in a FOREIGN KEY clause of a CREATE or ALTER TABLE statement. A FOREIGN KEY clause must identify a table.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement to specify a table name in the foreign key clause.

SQLSTATE: 42810

-158 THE NUMBER OF COLUMNS SPECIFIED FOR THE VIEW OR TABLE IS NOT THE SAME AS THE NUMBER OF COLUMNS SPECIFIED BY THE FULLSELECT, OR THE NUMBER OF COLUMNS SPECIFIED IN THE CORRELATION CLAUSE IN A FROM CLAUSE IS NOT THE SAME AS THE NUMBER OF COLUMNS IN THE CORRESPONDING TABLE, VIEW, TABLE EXPRESSION, OR TABLE FUNCTION

Explanation: There are three potential reasons for this SQL code:

- The number of column names that are specified for a view in a CREATE VIEW statement must equal the number of elements that are specified in the SELECT clauses of the following fullselect. These elements may be column names, SQL functions, and expressions, for example.
- The number of column names that are specified for a table in a CREATE TABLE statement must equal the number of columns in the result table of the following fullselect.
- The number of column names that are specified in a correlation clause must equal the number of columns in the corresponding table, view, table expression or table function.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax of the statement to specify a column name for each column in the corresponding object (table, view, etc.). Refer to Chapter 5 of *DB2 SQL Reference* for information about the syntax of the statement.

SQLSTATE: 42811

-159 THE STATEMENT REFERENCES *object-name* WHICH IDENTIFIES AN *object-type* RATHER THAN AN *expected-object-type*

Explanation: The object *object-name* was specified as part of a statement, and refers to an object of type *object-type* instead of the expected type *expected-object-type*. The type of the object that is provided with the statement must match the type that is identified by *expected-object-type*. For example, if the statement is DROP ALIAS TED.T1, then TED.T1 must be an alias name.

If *object-type* or *expected-object-type* is TABLE, and *object-type* or *expected-object-type* is a particular type of table, then the type of table was not valid for the statement that was specified.

System Action: The statement cannot be executed.

Programmer Response: Change the statement to match the type of object that is identified by

expected-object-type. For example:

- An ALTER VIEW statement must reference an existing view.
- A COMMENT ON ALIAS statement must specify the name of an alias, and not the name of a table or view.
- A COMMENT ON TABLE statement must reference an existing table or view.
- A CREATE INDEX statement with the UNIQUE keyword must specify a table that is not a materialized query table.
- A CREATE TRIGGER statement must specify a table in the ON clause that is not a materialized query table. That is, a trigger cannot be defined for a materialized query table.
- A DROP ALIAS statement must specify the name of an alias, and not the name of a table or view.
- A DROP TABLE statement must reference an existing table. If an alias is specified, then the table that the alias refers to is dropped. Use the DROP ALIAS statement to drop the alias.
- A DROP VIEW statement must reference an existing view.
- A REFRESH TABLE statement must refer to a materialized query table.

SQLSTATE: 42809

-160 THE WITH CHECK OPTION CANNOT BE USED FOR THE SPECIFIED VIEW

Explanation: The WITH CHECK OPTION does not apply to a view definition under either of the following circumstances:

- The view is read-only (for example, the view definition includes DISTINCT GROUP BY, or JOIN).
- The view definition includes a subquery.

System Action: The statement cannot be executed. The specified view was not created.

Programmer Response: Refer to Chapter 5 of *DB2 SQL Reference* for rules regarding use of the WITH CHECK OPTION in view definitions.

SQLSTATE: 42813

-161 THE INSERT OR UPDATE IS NOT ALLOWED BECAUSE A RESULTING ROW DOES NOT SATISFY THE VIEW DEFINITION

Explanation: The WITH CHECK OPTION applies to the view that is the object of the INSERT or UPDATE statement. Consequently, all attempts to insert or update rows in that view are checked to ensure that the results will conform to the view definition.

System Action: The statement cannot be executed. No inserts or updates were performed, and the contents

of the object view (and underlying base table) remain unchanged.

Programmer Response: Examine the view definition to determine why the requested INSERT or UPDATE was rejected. Note that this may be a data-dependent condition.

SQLSTATE: 44000

-164 *auth-id1* DOES NOT HAVE THE PRIVILEGE TO CREATE A VIEW WITH QUALIFICATION *authorization-ID*

Explanation: The authorization ID *auth-id1* does not have the authority necessary to create views with qualifiers other than its own authorization ID. Specifically, the attempt to create a view with qualifier *authorization-ID* is rejected.

System Action: The statement cannot be executed. The specified view was not created.

Programmer Response: Do not attempt to create views with other than your own ID as a qualifier. Only an authorization ID that holds 'SYSADM' or 'DBADM' authority can create views for other authorization IDs. The DBADM privilege should be granted on any of the databases that contain at least one of the tables on which this CREATE VIEW is based.

SQLSTATE: 42502

-170 THE NUMBER OF ARGUMENTS SPECIFIED FOR *function-name* IS INVALID

Explanation: An SQL statement includes the scalar function '*function-name*' with either too many or too few arguments.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement. Refer to Chapter 3 of *DB2 SQL Reference* for information about the number of arguments required by the scalar function '*function-name*'.

SQLSTATE: 42605

-171 THE DATA TYPE, LENGTH, OR VALUE OF ARGUMENT *nn* OF *function-name* IS INVALID

Explanation: Either the data type, the length or the value of argument *nn* of scalar function *function-name* is incorrect.

If the encoding scheme is EBCDIC or ASCII, a possible reason for this error is that a character argument was specified for a built-in function that expects a graphic argument, or a graphic argument was specified for a built-in function that expects a character argument. The UNICODE encoding scheme does support the mixing of character and graphic arguments.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement. Refer to Chapter 3 of *DB2 SQL Reference* for rules for each argument of the scalar function *function-name*.

SQLSTATE: 42815

-173 UR IS SPECIFIED ON THE WITH CLAUSE BUT THE CURSOR IS NOT READ-ONLY

Explanation: The cursor is not a read-only cursor. WITH UR can be specified only if DB2 can determine that the cursor is read-only.

System Action: Statement execution fails.

Programmer Response: If the cursor is intended to be read-only but is ambiguous, add the FOR FETCH ONLY clause. If the cursor is updateable, change the isolation level specified on the WITH clause.

SQLSTATE: 42801

-180 THE DATE, TIME, OR TIMESTAMP VALUE *value* IS INVALID

Explanation: The length or string representation of a DATE, TIME, or TIMESTAMP value does not conform to any valid format.

The value can contain one of the following:

- For a host variable, the position number of the input host variable. If the position number cannot be determined, a blank is displayed.
- For a character string constant, the character string constant. The maximum length that is displayed is the length of SQLERRM.
- For a character column, the column name. If the column is a VIEW column and it has a corresponding base column, the VIEW column name is displayed. If the column is a VIEW column but it does not have a corresponding base column, a string of '*N' is displayed.

Otherwise, value is a string of '*N'.

System Action: The statement cannot be executed.

Programmer Response: Correct the program to ensure the specified value conforms to the syntax of DATE, TIME, and TIMESTAMP. Refer to Chapter 2 of *DB2 SQL Reference* for a list of valid DATE and TIME formats.

SQLSTATE: 22007

-181 THE STRING REPRESENTATION OF A DATETIME VALUE IS NOT A VALID DATETIME VALUE

Explanation: The string representation of a datetime is not in the acceptable range or is not in the correct format. The proper ranges for datetime values are as

follows:

Table 2. Range of datetime values

Datetime		Numeric Range
Years		0001 to 9999
Months		1 to 12
Days	April, June, September, November (months 4, 6, 9, 11)	1 to 30
	February (month 2)	1 to 28 (Leap year 1 to 29)
	January, March, May, July, August, October, December (months 1, 3, 5, 7, 8, 10, 12)	1 to 31
Hours		0 to 24 (If hour is 24, other parts of time values are zeroes. If hour is USA, maximum hour is 12.)
Minutes		0 to 59
Seconds		0 to 59
Microseconds		0 to 999999

System Action: The statement cannot be executed.

Programmer Response: Check whether the value is within the valid range and is in the proper format. Refer to Chapter 2 of *DB2 SQL Reference* for information on string data formats.

SQLSTATE: 22007

-182 AN ARITHMETIC EXPRESSION WITH A DATETIME VALUE IS INVALID

Explanation: The specified arithmetic expression contains an improperly used datetime value or labeled duration.

System Action: The statement cannot be executed.

Programmer Response: Correct the indicated arithmetic expression.

SQLSTATE: 42816

-183 AN ARITHMETIC OPERATION ON A DATE OR TIMESTAMP HAS A RESULT THAT IS NOT WITHIN THE VALID RANGE OF DATES

Explanation: The result of an arithmetic operation is a date or timestamp that is not within the valid range of dates which are between 0001-01-01 and 9999-12-31.

System Action: The statement cannot be executed.

Programmer Response: Examine the SQL statement to see if the cause of the problem can be determined. The problem may be data-dependent, in which case it will be necessary to examine the data that was processed at the time the error occurred.

SQLSTATE: 22008

-184 AN ARITHMETIC EXPRESSION WITH A DATETIME VALUE CONTAINS A PARAMETER MARKER

Explanation: The specified arithmetic expression contains a parameter marker improperly used with a datetime value.

System Action: The statement cannot be executed.

Programmer Response: Correct the indicated arithmetic expression.

SQLSTATE: 42610

-185 THE LOCAL FORMAT OPTION HAS BEEN USED WITH A DATE OR TIME AND NO LOCAL EXIT HAS BEEN INSTALLED

Explanation: The local format option has been used with a datetime value and no datetime exit has been installed. This may occur if the LOCAL DATE LENGTH or LOCAL TIME LENGTH on the Installation Application Programming Defaults Panel indicated that an exit for datetime was supplied, but in fact the exit supplied by DB2 was not replaced. This may also occur if the datetime exit was replaced and the corresponding LOCAL DATE LENGTH or LOCAL TIME LENGTH on the Installation Application Programming Defaults Panel was not set to a nonzero value.

System Action: The statement cannot be executed.

Programmer Response: Contact the system programmer about installation of the date or time exit.

SQLSTATE: 57008

-186 THE LOCAL DATE LENGTH OR LOCAL TIME LENGTH HAS BEEN INCREASED AND EXECUTING PROGRAM RELIES ON THE OLD LENGTH

Explanation: The local format option has been used with a datetime value and DB2 has discovered that the datetime exit routine has been changed to produce a longer local format.

System Action: The statement cannot be executed.

Programmer Response: If the statement receiving this error is embedded in the application program, then a REBIND command must be issued for the application plan. If the statement was dynamic SQL, then the

statement can be reentered.

SQLSTATE: 22505

-187 A REFERENCE TO A CURRENT DATETIME SPECIAL REGISTER IS INVALID BECAUSE THE MVS TOD CLOCK IS BAD OR THE MVS PARMTZ IS OUT OF RANGE

Explanation: DB2 has encountered an invalid time-of-day (TOD) clock. The user referenced one of the special registers: CURRENT DATE, CURRENT TIME, CURRENT TIMESTAMP, or CURRENT TIMEZONE. If the user referenced CURRENT TIMEZONE, the MVS parameter PARMTZ was out of range.

System Action: The statement cannot be executed.

Programmer Response: For CURRENT TIMEZONE, check that the MVS parameter PARMTZ is between -24 and +24 hours. For the other CURRENT special registers, check that the MVS TOD clock has been set correctly.

SQLSTATE: 22506

-188 THE STRING REPRESENTATION OF A NAME IS INVALID

Explanation: The host variable referenced in the DESCRIBE statement does not contain a valid string representation of a name. One of the following error conditions has occurred.

- The first byte of the variable is a period or a blank.
- The number of identifiers is greater than 3.
- An identifier is too long.
- A period not contained in a delimited identifier is followed by a period or a blank.
- A delimited identifier is followed by a character other than a period or a blank.
- A delimited identifier is not terminated by a quotation mark.

System Action: The statement cannot be executed.

Programmer Response: Correct the value of the host variable so that it is a valid string representation of a name.

SQLSTATE: 22503

-189 CCSID *ccsid* IS INVALID

Explanation: To determine the subtype of an input host variable or result column, the SYSSTRINGS catalog table was accessed with the specified CCSID and:

- The CCSID is not a value of either INCCSID or OUTCCSID, or
- The TRANSTYPE column classifies the CCSID as GRAPHIC rather than CHARACTER, or

- A graphic CCSID has not been specified on your system.
- The CCSID is outside the acceptable range of values. The CCSID must be between 1 and 65533, inclusive, or the value 65535.
- A DBCS CCSID was specified when casting to CHAR, VARCHAR or CLOB.
- An SBCS or mixed CCSID, or 65535 was specified when casting to a graphic data type.
- CCSID 65535, which is valid only for data with the FOR BIT DATA attribute, was specified when casting to a CLOB.

This error can occur when SYSSTRINGS is accessed with a pair of CCSIDs to determine if a translation is defined for the pair. In this case, the error is the inconsistency between the data type of a string and the TRANSTYPE classification of its CCSID (one is GRAPHIC and the other is CHARACTER).

This error can also occur when a CCSID specified in DECP does not exist as a value in the INCCSID or OUTCCSID columns of SYSSTRINGS.

Another reason this error can occur is that you may be using one of the graphic built-in functions but a graphic CCSID was not specified during system installation.

System Action: The statement cannot be bound or executed.

Programmer Response: Ensure that the CCSID is valid and consistent with the data type of the string. If a valid CCSID is not listed in a built-in row of SYSSTRINGS, it can be defined by inserting a user-provided row. If a valid CCSID is misclassified in a user-provided row, that row can be updated to correct the mistake. Refer to the appendices of *DB2 Installation Guide* for more information on CCSIDs and to *DB2 SQL Reference* for more information on the SYSSTRINGS catalog table.

If a graphic CCSID had not been specified at system installation, update your DECP to include a graphic CCSID and recycle your DB2.

SQLSTATE: 22522

-190 THE ATTRIBUTES SPECIFIED FOR THE COLUMN *column-name* ARE NOT COMPATIBLE WITH THE EXISTING COLUMN DEFINITION

Explanation: The attributes that were specified in the ALTER COLUMN clause for the column *column-name* of the table *table-name* in an ALTER TABLE statement are not compatible with the attributes of the existing column. The error was returned for one of the following reasons:

- If a SET DATA TYPE clause is specified, the existing column is not compatible with the new data type that

was specified, or is of a data type that cannot be changed. The ALTER TABLE ALTER COLUMN SET DATA TYPE statement only allows changing columns of data type character or numeric.

- If a RESTART, SET GENERATED, SET INCREMENT BY, SET MINVALUE, SET NO MINVALUE, SET MAXVALUE, SET NO MAXVALUE, SET CYCLE, SET NO CYCLE, SET CACHE, SET NO CACHE, SET ORDER, or SET NO ORDER clause is specified, the existing column is not defined as an identity column. These clauses can only be specified for a column that is defined as an identity column.

System Action: The statement cannot be executed.

Programmer Response: Make the attributes that are specified in the statement compatible with the existing column definition, remove the attribute specification, or specify a different column name.

SQLSTATE: 42837

-191 A STRING CANNOT BE USED BECAUSE IT IS INVALID MIXED DATA

Explanation: The operation required the translation of a mixed data character string to a different coded character set. The string could not be translated because it does not conform to the rules for well-formed mixed data. For example, the string contains EBCDIC shift codes that are not properly paired.

System Action: The statement cannot be executed.

Programmer Response: If the string contains the intended information, the description of the column or host variable should be changed from MIXED DATA to BIT or SBCS DATA. If the description of the column or host variable is correct, the string is the problem and it must be changed to conform to the rules for well-formed mixed data. For more information about well-formed MIXED DATA refer to Chapter 2 of *DB2 SQL Reference*.

SQLSTATE: 22504

-197 QUALIFIED COLUMN NAMES IN ORDER BY CLAUSE NOT PERMITTED WHEN UNION OR UNION ALL SPECIFIED

Explanation: A SELECT statement that specifies both the union of two or more tables and the ORDER BY clause cannot use qualified column names in the ORDER BY clause.

Programmer Response: Change the statement so that qualified names are not necessary in the ORDER BY clause.

System Action: The statement is not executed.

SQLSTATE: 42877

-198 THE OPERAND OF THE PREPARE OR EXECUTE IMMEDIATE STATEMENT IS BLANK OR EMPTY

Explanation: The operand (host variable or literal string) that was the object of the PREPARE or EXECUTE IMMEDIATE statement either contained all blanks or was an empty string. A DBRM built in Version 2 Release 3 cannot be used on a Version 2 Release 2 system if the distributive functions were used. If this error appears on Version 2 Release 2 and the DBRM was built on Version 2 Release 3, the program needs to be precompiled again to correct the problem.

System Action: The statement cannot be executed.

Programmer Response: Correct the logic of the application program to ensure that a valid SQL statement is provided in the operand of the PREPARE or EXECUTE IMMEDIATE statement before that statement is executed.

SQLSTATE: 42617

-199 ILLEGAL USE OF KEYWORD *keyword*. TOKEN *token-list* WAS EXPECTED

Explanation: A syntax error was detected in the statement at the point where the keyword *keyword* appears.

As an aid to the programmer, a partial list of valid tokens is provided in SQLERRM as *token-list*. Only those tokens that will fit are listed. Some tokens in the list might not be valid in statements to be executed by DB2; those tokens are valid for sending to other database management systems.

System Action: The statement cannot be executed.

Programmer Response: Examine the statement in the area of keyword *keyword*. A colon or SQL delimiter might be missing.

Verify that the clauses are in the correct order. If the reserved word that is identified in the messages is listed as a reserved word, make the word a delimited identifier.

SQLSTATE: 42601

-203 A REFERENCE TO COLUMN *column-name* IS AMBIGUOUS

Explanation: An unqualified column name is ambiguous if more than one table or view identified in the FROM clause has a column with that name, or if more than one column of a nested table expression has that name.

A qualified column name is ambiguous only if the qualifier is the correlation name for a nested table expression and the column name is not unique.

A reference to a column of the triggering table in a

CREATE TRIGGER statement is ambiguous if it does not use the correlation name to indicate if it refers to the old or new transition variable.

System Action: The statement cannot be executed.

Programmer Response: If the problem is caused by a nonunique column name in a nested table expression, change the nested table expression so that the column name is unique. If the problem is caused by the use of an unqualified name, qualify it with a table, view, or correlation name.

SQLSTATE: 42702

-204 *name* IS AN UNDEFINED NAME

Explanation: The object identified by *name* is not defined in the DB2 subsystem. This SQLCODE can be generated for any type of DB2 object.

System Action: The statement cannot be executed.

Programmer Response: Verify that the object name was correctly specified in the SQL statement, including any required qualifiers. If it is correct, ensure that the object exists in the system before resubmitting the statement.

If the specified object is a routine, execute the CREATE PROCEDURE or CREATE FUNCTION statement to define the routine to DB2. Issue the -START PROCEDURE command to activate the new definition.

SQLSTATE: 42704

-205 *column-name* IS NOT A COLUMN OF TABLE *table-name*

Explanation: For ALTER TABLE ALTER COLUMN, column *column-name* is not a column in table *table-name*.

System Action: The statement cannot be executed.

Programmer Response: Verify that the column and table names are specified correctly (including any required qualifiers) in the SQL statement.

SQLSTATE: 42703

-206 *column-name* IS NOT A COLUMN OF AN INSERTED TABLE, UPDATED TABLE, OR ANY TABLE IDENTIFIED IN A FROM CLAUSE, OR IS NOT A COLUMN OF THE TRIGGERING TABLE OF A TRIGGER

Explanation: This return code is used to report one of the following errors:

- In the case of an INSERT or UPDATE statement, the specified column is not a column of the table or view that was specified as the object of the insert or update.

- In the case of an INSERT with VALUES clause, there is a column referenced and columns are not allowed in the VALUES clause.
- In the case of a SELECT or DELETE statement, the specified column is not a column of any of the tables or views identified in a FROM clause in the statement.
- There is a correlated reference in the GROUP BY clause in the select list of a subselect, or a correlated reference is not used in a search condition.
- There is an unresolved qualified reference in HAVING.
- For a CREATE TRIGGER statement:
 - A reference is made to a column using an OLD or NEW correlation name. The column name is not defined in the triggering table.
 - The left side of an assignment in the SET transition-variable statement in the triggered action specifies an old transition variable where only a new transition variable is supported or trigger was not created.

System Action: The statement cannot be executed. No data was retrieved, inserted, or updated or the trigger was not created.

Programmer Response: Verify that the column and table names are specified correctly in the SQL statement. In the case of a SELECT statement, check to be sure that all of the required tables were named in the FROM clause.

In the case of a CREATE TRIGGER statement, ensure that only new transition variables are specified on the left side of assignments in the SET transition-variable statement and that any reference to columns of the triggering table are qualified with a transition variable correlation name.

SQLSTATE: 42703

-208 THE ORDER BY CLAUSE IS INVALID BECAUSE COLUMN *name* IS NOT PART OF THE RESULT TABLE

Explanation: The statement is invalid because a column ('name') specified in the ORDER BY list does not appear in the result table (that is, it is not specified in the SELECT-list). Only columns in the result table can be used to order that result when the *fullselect* of the *select-statement* is not a *subselect*.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax of the statement, either by adding the specified column to the result table, or deleting it from the ORDER BY clause. Refer to Chapter 4 of *DB2 SQL Reference* for information about restrictions on the use of the ORDER BY clause to order the result of an SQL SELECT.

SQLSTATE: 42707

-212 *name* IS SPECIFIED MORE THAN ONCE IN THE REFERENCING CLAUSE OF A TRIGGER DEFINITION

Explanation: The REFERENCING clause of a CREATE TRIGGER statement specified the same name for more than one of the OLD or NEW correlation names or the OLD_TABLE or NEW_TABLE identifiers. *name* is the name that was specified multiple times.

System Action: The statement cannot be executed. The trigger was not created.

Programmer Response: Change the statement to specify unique names for all transition variables and tables in the REFERENCING clause and resubmit the CREATE TRIGGER request.

SQLSTATE: 42712

-214 AN EXPRESSION IN THE FOLLOWING POSITION, OR STARTING WITH *position-or-expression-start* IN THE *clause-type* CLAUSE IS NOT VALID. REASON CODE = *reason-code*

Explanation: The expression identified by the first part of the expression *expression-start* in the *clause-type* clause is not valid for the reason specified by the *reason-code* as follows:

1. The fullselect of the select-statement is not a subselect. Expressions are not allowed in the ORDER BY clause for this type of select-statement. This reason code occurs only when *clause-type* is ORDER BY.
2. DISTINCT is specified in the select clause, and either a column name in the ORDER BY clause cannot be matched exactly with a column name in the SELECT list, or a *sort-key-expression* is specified in the ORDER BY clause. This reason code occurs only when *clause-type* is ORDER BY.
3. The select list includes an aggregate function or the subselect includes a GROUP BY clause and the expression is not an aggregate function or does not match exactly with an expression in the select list.
4. Grouping is caused by the presence of an aggregate function in the ORDER BY clause. This reason code occurs only when *clause-type* is ORDER BY.
5. Expression in a GROUP BY clause cannot contain a scalar-fullselect. This reason code occurs only when *clause-type* is GROUP BY.
6. Invalid use of scalar-fullselect. This reason code can be issued when the RETURN statement of an SQL function contains a scalar-fullselect, or a scalar-fullselect is passed as an argument on a CALL statement for a parameter that is defined as an input parameter (IN).

System Action: The statement cannot be executed.

Programmer Response: Modify the select-statement

based on the reason specified by the *reason-code* as follows:

1. Remove the expression from the ORDER BY clause. If attempting to reference a column of the result, change the sort key to the *simple-integer* or *simple-column-name* form. See the ORDER BY syntax diagram in the DB2 SQL Reference for more information
2. Remove DISTINCT from the select clause
3. Remove DISTINCT from the SELECT clause.
4. Change the expression in the ORDER BY or GROUP BY clause to an aggregate function or change the clause to use a numeric column identifier or a column name.
5. Add a GROUP BY clause or remove the aggregate function from the ORDER BY clause.
6. Remove the scalar fullselect from the GROUP BY clause.
7. Remove the scalar fullselect from the statement.

SQLSTATE: 42822

-216 THE NUMBER OF ELEMENTS ON EACH SIDE OF A PREDICATE OPERATOR DOES NOT MATCH. PREDICATE OPERATOR IS *operator*.

Explanation: The number of expressions specified on the left-hand side of OPERATOR *operator* is unequal to either the number of values returned by the fullselect or to the number of expressions specified on the right-hand side of the operator. The number of expressions and the number of values/expressions on either side of the operator must be equal.

System Action: The statement was not executed.

Programmer Response: Change the number of expressions to match the number of values returned by the fullselect or vice versa.

SQLSTATE: 428C4

-219 THE REQUIRED EXPLANATION TABLE *table-name* DOES NOT EXIST

Explanation: The EXPLAIN statement assumes the existence of the explanation table and it is not defined in the DB2 subsystem as a base table. Refer to Chapter 5 of *DB2 SQL Reference* for more information.

System Action: The statement cannot be executed.

Programmer Response: Determine whether the required explanation table does exist. If not, create the required table.

SQLSTATE: 42704

-220 THE COLUMN *column-name* IN EXPLANATION TABLE *table-name* IS NOT DEFINED PROPERLY

Explanation: An error occurred during the insertion of a row into the explanation table. The table is improperly defined for the following reasons:

- A column is missing.
- Columns are defined in the wrong order.
- The table contains an extra column.
- A column description is invalid because of its name, data type, length, or null attributes.

System Action: The statement cannot be executed. The explanation information is not generated.

Programmer Response: Correct the definition of the required explanation table. Refer to Chapter 5 of *DB2 SQL Reference* for information on defining an explanation table.

SQLSTATE: 55002

-221 “SET OF OPTIONAL COLUMNS” IN EXPLANATION TABLE *table-name* IS INCOMPLETE. OPTIONAL COLUMN *column-name* IS MISSING

Explanation: The EXPLAIN statement assumes the required explanation table is defined properly. The optional column indicated is not defined in the indicated explanation table. PLAN_TABLEs must have one of several specific formats. The format chosen must be complete, and each column in the PLAN_TABLE definition must be correct for the chosen format. The allowed formats for the PLAN_TABLE are described in Chapter 6 of *DB2 SQL Reference*.

System Action: The explanation information is not generated.

Programmer Response: Correct the definition of the required explanation table to include all of the optional columns in the chosen format, just the Version 2 Release 2 optional columns, or no optional columns. Refer to Chapter 5 of *DB2 SQL Reference* for information on defining an explanation table.

SQLSTATE: 55002

-222 AN UPDATE OR DELETE OPERATION WAS ATTEMPTED AGAINST A HOLE USING CURSOR *cursor-name*

Explanation: DB2 could not process a positioned update or delete with cursor *cursor-name* that is defined as SENSITIVE STATIC. The selected row is either a delete hole or an update hole. DB2 detects these holes when DB2 tries to delete or update the current row of the result table for cursor *cursor-name*, and cannot locate the corresponding row of the underlying table.

A *delete hole* occurs when the corresponding row of the

underlying table has been deleted.

An *update hole* occurs when the corresponding row of the underlying table has been updated, and the updated row no longer satisfies the search condition that is specified in the SELECT statement of the cursor.

System Action: The statement cannot be processed. The cursor is positioned on the hole.

Programmer Response: Issue a FETCH statement to position the cursor on a row.

SQLSTATE: 24510

-224 THE RESULT TABLE DOES NOT AGREE WITH THE BASE TABLE USING *cursor-name*

Explanation: DB2 attempted a positioned UPDATE or DELETE was attempted on a row that no longer matches its previous condition. The column values in the result table row do not match the current values in the base table row because the row was updated between the time it was inserted into the result table and the positioned update or delete was executed.

cursor-name

Name of the cursor used for the positioned update or delete.

System Action: The statement cannot be processed. The cursor is positioned on the same row.

Programmer Response: Correct the application program to handle this error condition or change isolation levels so the base row cannot be updated during the cursor operation.

SQLSTATE: 24512

-225 FETCH STATEMENT FOR *cursor-name* IS NOT VALID BECAUSE THE CURSOR IS NOT DEFINED AS SCROLL

Explanation: DB2 could not process a FETCH statement for cursor *cursor-name* because it contained a disallowed keyword. You may only specify the keyword NEXT for non-scrollable cursors. The keywords PRIOR, FIRST, LAST, ABSOLUTE, RELATIVE, CURRENT, BEFORE, and AFTER are disallowed for a cursor that was not declared with the SCROLL attribute.

cursor-name

Name of the cursor used for the FETCH statement.

System Action: The statement cannot be processed.

Programmer Response: Correct the FETCH statement to exclude the disallowed keyword, or correct the DECLARE CURSOR statement to include the appropriate SCROLL option.

SQLSTATE: 42872

-227 FETCH *fetch-orientation* IS NOT ALLOWED, BECAUSE CURSOR *cursor-name* HAS AN UNKNOWN POSITION (*sqlcode,sqlstate*)

Explanation: The cursor position for *cursor-name* is unknown. The previous multiple-row FETCH for cursor *cursor-name* resulted in an error (SQLCODE *sqlcode*, SQLSTATE *sqlstate*) in the middle of processing multiple rows that were retrieved from DB2. One or more of the requested rows could not be returned to the program following the error, leaving the position of the cursor unknown.

If an indicator structure had been provided on the previous multiple-row FETCH, a positive SQLCODE would have been returned and all of the rows that were retrieved from DB2 could have been returned to the application program.

System Action: The statement cannot be processed. The cursor position is not changed.

Programmer Response: Close and reopen the cursor to reset the position. For scrollable cursors, you can change the FETCH statement to specify one of the other fetch orientations (such as FIRST, LAST, BEFORE, AFTER, or ABSOLUTE) to establish a valid cursor position and fetch a row of data.

SQLSTATE: 24513

-228 FOR UPDATE CLAUSE SPECIFIED FOR READ-ONLY CURSOR *cursor-name*

Explanation: A cursor was declared read-only with the INSENSITIVE SCROLL option, but the SELECT statement contained a FOR UPDATE clause.

cursor-name

Name of the cursor used for the FETCH.

System Action: The statement cannot be processed.

Programmer Response: To define a scrollable cursor that is read-only, specify INSENSITIVE SCROLL, but do not specify FOR UPDATE clause. To define a scrollable cursor that can be updated, specify SENSITIVE SCROLL. Correct the application program to DECLARE CURSOR appropriately.

SQLSTATE: 42620

-229 THE LOCALE *locale* SPECIFIED IN A SET LOCALE OR OTHER STATEMENT THAT IS LOCALE SENSITIVE WAS NOT FOUND

Explanation: The statement attempted to reference a Locale that is not known or not available to DB2. *locale* is the locale that was either specified on the SET CURRENT LOCALE statement or the locale that was in effect at the time the Locale access was attempted.

System Action: The statement cannot be executed.

Programmer Response: If the statement was a SET LOCALE statement, re-specify a locale that is correct (known and available to DB2). Refer to Chapter 3 of SQL Reference for more information on Locales. If the statement was something other than SET LOCALE, then the statement contained a locale sensitive interface (the UPPER function is an example of a locale sensitive interface). Issue "SELECT CURRENT LOCALE FROM SYSIBM.SYSDUMMY1" to determine the value of the LOCALE in use by your program. Possible reasons for this message include an incorrect LOCALE bind option, or an incorrect LOCALE default value specified at installation time (The value of a Locale is not validated until it is needed in a Locale sensitive interface). Because Locales are dynamic in nature, they can be added, created, or deleted at anytime, they are not validated until they are used. Therefore, it is possible to specify a locale that is not valid at installation or bind time.

SQLSTATE: 42708

-240 THE PART CLAUSE OF A LOCK TABLE STATEMENT IS INVALID

Explanation: The LOCK TABLE statement is invalid for one of the following reasons:

- If it is partitioned, specify a PART clause that identifies the partition you want to lock.

System Action: The LOCK TABLE statement cannot be executed.

Programmer Response: Determine whether the specified table resides in a partitioned table space defined with LOCKPART YES.

- If it is partitioned and defined with LOCKPART YES, specify a PART clause that identifies the partition you want to lock.
- If it is partitioned but does not have the LOCKPART YES attribute and you want to lock a single partition, use ALTER TABLESPACE to change the LOCKPART attribute to YES.
- If it is not partitioned, do not specify the PART clause.

SQLSTATE: 428B4

-242 THE OBJECT NAMED *object-name* OF TYPE *object-type* WAS SPECIFIED MORE THAN ONCE IN THE LIST OF OBJECTS

Explanation: In a list of object names of type *object-type*, the object named *object-name* was specified more than once.

System Action: The statement cannot be processed.

Programmer Response: Correct the error by removing from the list all duplicate occurrences of the object.

SQLSTATE: 42713

-243 SENSITIVE CURSOR *cursor-name* CANNOT BE DEFINED FOR THE SPECIFIED SELECT STATEMENT

Explanation: The cursor *cursor-name* is defined as SENSITIVE, but the content of the SELECT statement requires DB2 to build a temporary table with the result table of the cursor, and DB2 cannot guarantee that changes made outside the cursor will be visible. This situation occurs when the content of the query making the result table read-only. In this case the cursor must be defined INSENSITIVE or ASENSITIVE.

System Action: The statement cannot be processed.

Programmer Response: Either change the content of the query to result in a result table that is not read-only, or change the type of cursor to be INSENSITIVE or ASENSITIVE.

SQLSTATE: 36001

-244 SENSITIVITY *sensitivity* SPECIFIED ON THE FETCH IS NOT VALID FOR CURSOR *cursor-name*

Explanation: The sensitivity option specified on FETCH conflicts with the sensitivity option in effect for cursor *cursor-name*. If a cursor is declared INSENSITIVE, the FETCH statement can only specify INSENSITIVE or nothing. If a cursor is declared SENSITIVE, the FETCH statement can specify INSENSITIVE, SENSITIVE, or nothing.

The keyword INSENSITIVE is not allowed with the FETCH statements if the associated cursor is either:

- Declared as SENSITIVE DYNAMIC SCROLL, or
- The cursor is declared ASENSITIVE, and DB2 selected the maximum allowable sensitivity of SENSITIVE DYNAMIC SCROLL for the associated SELECT statement.

In the case of a non-scrollable cursor, the sensitivity option cannot be specified.

sensitivity
Specified sensitivity for the FETCH statement.

cursor-name
Name of the cursor used for the FETCH statement.

System Action: The statement cannot be processed.

Programmer Response: Change or remove the sensitivity option that is specified on the FETCH.

SQLSTATE: 428F4

-245 THE INVOCATION OF FUNCTION *routine-name* IS AMBIGUOUS

Explanation: DB2 issues this error when an invocation of a function is ambiguous. This occurs when an untyped parameter marker is passed to a function and

there are two or more possible candidate functions to resolve to during function resolution.

System Action: The statement cannot be processed.

Programmer Response: Fix the problem and retry. This could involve a change to the SQL statement, changing the definition of a function, or a change to the user's current path. See the *DB2 Application Programming and SQL Guide* for details on function resolution.

SQLSTATE: 428F5

-246 STATEMENT USING CURSOR *cursor-name* SPECIFIED NUMBER OF ROWS *num-rows* WHICH IS NOT VALID WITH *dimension*

Explanation: A multiple-row FETCH or multiple-row INSERT statement is not valid in this context. The number of rows that were specified is not greater than 0 and not less than or equal to 32767, or is greater than the dimension of the host variable array. The number of rows that were specified is *num-rows*, and the dimension of the array is *dimension*. If this is a FETCH statement, the cursor name is *cursor-name*. Otherwise, the cursor name is not applicable.

System Action: The statement cannot be processed. The cursor position is unchanged.

Programmer Response: Change the application to either declare, or allocate a host-variable-array that is large enough to contain the number of rows specified in the statement, or update the value of *num-rows* to a value within the valid range.

SQLSTATE: 42873

-247 A HOLE WAS DETECTED ON A MULTIPLE ROW FETCH STATEMENT USING CURSOR *cursor-name*, BUT INDICATOR VARIABLES WERE NOT PROVIDED TO DETECT THE CONDITION

Explanation: A hole was detected on a FETCH statement for multiple rows of data, but no indicator variables were provided to reflect the situation to the application.

System Action: The statement cannot be processed.

Programmer Response: Change the FETCH statement to provide at least one indicator variable, and resubmit the statement.

SQLSTATE: 24519

-248 A POSITIONED DELETE OR UPDATE STATEMENT FOR CURSOR *cursor-name* SPECIFIED ROW *n* OF A ROWSET, BUT THE ROW IS NOT CONTAINED WITHIN THE CURRENT ROWSET

Explanation: The FOR ROW *n* OF ROWSET clause was specified on a positioned DELETE or UPDATE statement, but row *n* is not contained within the bound of the rowset. This situation can also occur when row *n* is within the bounds of the rowset that was requested, but the current rowset contains less than the requested number of rows. In this case, a partial rowset is returned. A partial rowset can occur for various reasons, including an end of data condition or an error that did not result in the closure of the cursor.

System Action: The statement cannot be processed.

Programmer Response: Reissue the positioned UPDATE or DELETE with a value that corresponds to a row of the current rowset. If the row that is specified is outside of the current rowset, then do the following:

- Use the FOR *n* ROWS clause on a FETCH CURRENT ROWSET statement to specify that the rowset contains a larger number of rows
- Reissue the positioned UPDATE or DELETE statement.

If this message is issued because a partial rowset was returned,

- Update the application logic to detect that the actual rowset size was less than the rowset size that was requested
- Ensure that a positioned UPDATE or DELETE statement only refers to rows of the current rowset.

SQLSTATE: 24521

-249 DEFINITION OF ROWSET ACCESS FOR CURSOR *cursor-name* IS INCONSISTENT WITH THE FETCH ORIENTATION CLAUSE *clause* SPECIFIED

Explanation: The clause that was specified as the fetch-orientation for a FETCH statement is inconsistent with the definition of the cursor. What can be specified for fetch-orientation depends on whether the cursor was defined for rowset access:

- A cursor defined WITH ROWSET POSITIONING can only use rowset positioned fetch orientation clauses: NEXT ROWSET, PRIOR ROWSET, FIRST ROWSET, LAST ROWSET, CURRENT ROWSET, or ROWSET STARTING AT.
- A cursor defined WITHOUT ROWSET POSITIONING can only use row positioned fetch orientation keywords: NEXT, PRIOR, FIRST, LAST, BEFORE, AFTER, CURRENT, or ABSOLUTE, RELATIVE.

System Action: The statement cannot be processed.

Programmer Response: Correct the fetch orientation, or redefine the cursor.

SQLSTATE: 24523

-250 THE LOCAL LOCATION NAME IS NOT DEFINED WHEN PROCESSING A THREE-PART OBJECT NAME

Explanation: A three-part object name (table, view, or alias) cannot be used until the local location name is defined.

System Action: Install or reinstall the DB2 distributed data facility (DDF) with a registered location name for local DB2.

Programmer Response: Define the local location name and then retry the function.

SQLSTATE: 42718

-251 TOKEN *name* IS NOT VALID

Explanation: A *location name* cannot contain alphabetic extenders. (The standard alphabetic extenders in the United States are #, @, \$.)

System Action: The statement cannot be executed

Programmer Response: Correct the name and reissue the statement.

SQLSTATE: 42602

-253 A NON-ATOMIC *statement* STATEMENT SUCCESSFULLY COMPLETED FOR SOME OF THE REQUESTED ROWS, POSSIBLY WITH WARNINGS, AND ONE OR MORE ERRORS

Explanation: A non-atomic *statement* statement successfully processed some of the rows of data that were requested. However, one or more error conditions occurred, and some warnings may have also occurred. Use GET DIAGNOSTICS to obtain information about the error and warning conditions that occurred.

System Action: One or more rows were successfully processed, but one or more errors or warnings also occurred.

Programmer Response: Analyse the error and warning conditions to determine if the statement should be rolled back.

SQLSTATE: 22529

-254 A NON-ATOMIC *statement* STATEMENT ATTEMPTED TO PROCESS MULTIPLE ROWS OF DATA, BUT ERRORS OCCURRED.

Explanation: A non-atomic *statement* statement specified that multiple rows of data were to be

processed, but errors occurred during the processing of those rows of data. Use GET DIAGNOSTICS to obtain information about the error and warning conditions that occurred.

System Action: One or more rows were successfully processed, but one or more errors or warnings also occurred.

Programmer Response: Analyse the error and warning conditions to determine the appropriate corrective actions.

SQLSTATE: 22530

-270 FUNCTION NOT SUPPORTED

Explanation: The statement cannot be processed because it violates one or more of the following restrictions:

- For an ALTER TABLE statement that names a materialized query table, the alterations are limited to either:
 - Changing materialized query table attributes, or turning the materialized query table to a base table, or
 - Using AUDIT, DATA CAPTURE, and ADD or DROP RESTRICT ON DROP clauses, (but not both in the same statement).
- The length of the column for a base table cannot be altered if that base table is referenced by a materialized query table definition.
- A materialized query table cannot be renamed.
- The XML data type can only be used as a transient data type, and cannot be stored in the database nor returned to an application.

System Action: The statement cannot be processed.

Programmer Response: Alter the materialized query table into a base table before performing the alteration, or drop and recreate the materialized query table.

If this error is caused by an XML data type, input the XML data to one of the functions that accept XML input. Store the output of the function in the database, or return it to the application.

SQLSTATE: 42997

-300 THE STRING CONTAINED IN HOST VARIABLE OR PARAMETER *position-number* IS NOT NUL-TERMINATED

Explanation: A host variable or parameter is invalid. Its entry in the SQLDA is indicated by *position-number*. The host variable or parameter is a C string variable that is one of the following:

- Used as an input parameter to a stored procedure or function.

- Returned as an output parameter from a stored procedure or function.
- Referenced as an input variable in an embedded SQL statement.
- Used to provide a value for a parameter marker of a dynamic SQL statement.

If the data type of the variable is character string, it is invalid because it does not include X'00'. If the data type of the variable is graphic string, it is invalid because it does not include X'0000'.

System Action: The statement cannot be executed.

Programmer Response: Append a NUL-terminator to the end of the string.

SQLSTATE: 22024

-301 THE VALUE OF INPUT HOST VARIABLE OR PARAMETER NUMBER *position-number* CANNOT BE USED AS SPECIFIED BECAUSE OF ITS DATA TYPE

Explanation: DB2 received data that could not be used as specified in the statement because its data type is incompatible with the requested operation.

The *position-number* identifies either the host variable number (if the message is issued as a result of an INSERT, UPDATE, DELETE, SELECT, VALUE INTO, or SET assignment statement), or the parameter number (if the message is issued as the result of a CALL statement, or the invocation of a function).

System Action: The statement cannot be executed.

Programmer Response: Correct the application program, function or stored procedure. Ensure that the data type of the indicated input host variable or parameter in the statement is compatible with the way it is used.

SQLSTATE: 42895

-302 THE VALUE OF INPUT VARIABLE OR PARAMETER NUMBER *position-number* IS INVALID OR TOO LARGE FOR THE TARGET COLUMN OR THE TARGET VALUE

Explanation: DB2 received data that was invalid or too large to fit in the corresponding column of the table or the corresponding target value. The *position-number* identifies either the host variable number (if the message is issued as a result of an INSERT, UPDATE, DELETE, SELECT, VALUES INTO, or SET assignment statement), or the parameter number (if the message is issued as the result of a CALL statement or the invocation of a function).

One of the following occurred:

- The column is defined as a string and the host variable or parameter contains a string that is too long for the column.
- The column is defined as numeric and the host variable or parameter contains a numeric value too large for the definition of the column.
- The host variable is defined as decimal, but contains invalid decimal data.
- The target value is a string constant and the host variable or parameter contains a string that is too long for the target value.
- The target value is a numeric constant and the host variable or parameter contains a numeric value that is too large for the target value.

System Action: The statement cannot be executed.

Programmer Response: Correct the application program, function or stored procedure. Check the column type and length of the value or the data type and contents of the input host variable or parameter *position-number*. Ensure that the value of the host variable or parameter will fit in the column or contains valid decimal data. Valid decimal data is a System/370 packed decimal number.

SQLSTATE: 22003 if *number too large for target*, 22001 otherwise.

-303 A VALUE CANNOT BE ASSIGNED TO OUTPUT HOST VARIABLE NUMBER *position-number* BECAUSE THE DATA TYPES ARE NOT COMPARABLE

Explanation: A CALL, FETCH, SELECT, VALUES INTO, or SET *host-variable* statement with an output host variable, whose entry in the output SQLDA is indicated by *position-number*, could not be performed. The data type of the variable was not compatible with the data type of the corresponding SELECT, VALUES INTO, or SET *host-variable* statement list element. The values of the output host variable and the corresponding list element must be in one of the following categories:

- Both must be numbers.
- Both must be character strings if not using Unicode.
- Both must be graphic strings if not using Unicode.
- Both must be row IDs.

In addition, for datetime, timestamp values, the host variable must be a character string variable with a correct length.

System Action: The CALL, FETCH, SELECT, VALUES INTO, or SET *host-variable* statement cannot be executed. No data was retrieved.

Programmer Response: Verify that table definitions are current and that the host variable has the correct data type.

SQLSTATE: 42806

-304 **A VALUE WITH DATA TYPE *data-type1* CANNOT BE ASSIGNED TO A HOST VARIABLE BECAUSE THE VALUE IS NOT WITHIN THE RANGE OF THE HOST VARIABLE IN POSITION *position-number* WITH DATA TYPE *data-type2***

Explanation: A CALL, FETCH, SELECT, VALUES INTO, or SET assignment statement with a host variable list or structure in position number *position-number* failed because the host variable with data type *data-type2* was not large enough to hold the retrieved value with data type *data-type1*.

System Action: The statement cannot be executed. No data was retrieved. If the statement was a FETCH, the cursor remains open.

Programmer Response: Verify that table definitions are current, and that the host variable has the correct data type. See the explanation for SQLCODE -405 for ranges of SQL data types.

SQLSTATE: 22003

-305 **THE NULL VALUE CANNOT BE ASSIGNED TO OUTPUT HOST VARIABLE NUMBER *position-number* BECAUSE NO INDICATOR VARIABLE IS SPECIFIED**

Explanation: A FETCH, SELECT, VALUES INTO, or SET assignment statement resulted in the retrieval of a null value to be inserted into the output host variable, designated by entry number 'position-number' of the output SQLDA, for which no indicator variable was provided. An indicator variable must be supplied if a column returns a null value.

System Action: The statement cannot be executed. No data was retrieved.

Programmer Response: Examine the definition of the table that is the object of the statement and correct the application program to provide indicator variables for all host variables into which null values can be retrieved. This includes host variables for columns which can contain null values and host variables which receive the results of aggregate functions whose result table could be empty.

SQLSTATE: 22002

-309 **A PREDICATE IS INVALID BECAUSE A REFERENCED HOST VARIABLE HAS THE NULL VALUE**

Explanation: The statement could not be processed because a host variable appearing in a predicate such as

column-name = host-variable

had the NULL value. Such a predicate is not permitted when the host variable contains the NULL value even though the object column might contain nulls.

System Action: The statement cannot be executed.

Programmer Response: Rebind the plan or package containing the statement. The condition described is not an error in DB2 Version 2 Release 3 and later releases.

SQLSTATE: 22512

-310 **DECIMAL HOST VARIABLE OR PARAMETER *number* CONTAINS NON-DECIMAL DATA**

Explanation: DB2 received nondecimal data from either an application (in the form of a host variable), function or a stored procedure (in the form of a parameter that was passed to or from function or a stored procedure).

number Identifies either the host variable number (if the message is issued as a result of a FETCH, INSERT, UPDATE, DELETE, SELECT, VALUES INTO, or SET assignment statement statement), or the parameter number (if the message is issued as the result of the invocation of a function, or a CALL statement).

System Action: The statement cannot be processed.

Programmer Response: Correct the application program or stored procedure. Ensure that all decimal variables or parameters contain valid System/370 packed decimal numbers.

SQLSTATE: 22023

-311 **THE LENGTH OF INPUT HOST VARIABLE NUMBER *position-number* IS NEGATIVE OR GREATER THAN THE MAXIMUM**

Explanation: When evaluated, the length specification for input host string variable, whose entry in the SQLDA is indicated by position-number, was negative or greater than the maximum.

System Action: The statement cannot be executed.

Programmer Response: Correct the program to ensure that the lengths of all host string variables are not negative or that they are not greater than the maximum allowed length.

SQLSTATE: 22501

-312 ***variable-name* IS AN UNDEFINED OR UNUSABLE HOST VARIABLE OR IS USED IN A DYNAMIC SQL STATEMENT OR A TRIGGER DEFINITION**

Explanation: The host variable *variable-name* appears in the SQL statement, but:

- The SQL statement is a prepared statement, or
- The attributes of the variable are inconsistent with its usage in the SQL statement, or
- The variable is not declared in the application program or
- The variable appeared in one of the triggered SQL statements in a CREATE TRIGGER statement.

System Action: The statement cannot be executed.

Programmer Response: Verify that

- The variable name is spelled properly in the SQL statement.
- The variable is allowed in the SQL statement.
- The application program contains a declaration for that variable.
- The attributes of the variable are compatible with its use in the statement.

SQLSTATE: 42618

-313 THE NUMBER OF HOST VARIABLES SPECIFIED IS NOT EQUAL TO THE NUMBER OF PARAMETER MARKERS

Explanation: The number of host variables specified in the EXECUTE or OPEN statement is not the same as the number of parameter markers (question marks) appearing in the prepared SQL statement.

System Action: The statement cannot be executed.

Programmer Response: Correct the application program so that the number of host variables specified in the EXECUTE or OPEN statement is the same as the number of parameter markers appearing in the prepared SQL statement. The DESCRIBE INPUT SQL statement can be used to determine the expected number of input parameter markers.

SQLSTATE: 07001

-314 THE STATEMENT CONTAINS AN AMBIGUOUS HOST VARIABLE REFERENCE

Explanation: A host variable used in the statement has been defined more than once in this application program causing confusion as to which host variable defined should be used.

System Action: The statement cannot be executed.

Programmer Response: Make the host variable unique or use qualifications to indicate which host variable definition is to be used.

SQLSTATE: 42714

-327 THE ROW CANNOT BE INSERTED BECAUSE IT IS OUTSIDE THE BOUND OF THE PARTITION RANGE FOR THE LAST PARTITION

Explanation: When a row is inserted, the calculated partition key value for the new row must be within the bounds of a partition (as specified in the VALUES clause of the CREATE INDEX statement).

System Action: The statement cannot be executed.

Programmer Response: Correct the statement to specify a value for the partition key that is within the bounds of the last partition of the partitioned table space.

SQLSTATE: 22525

-330 A STRING CANNOT BE USED BECAUSE IT CANNOT BE CONVERTED. REASON *reason-code*, CHARACTER *code-point*, HOST VARIABLE *position-number*

Explanation: A translation error occurred during the translation of a string to a different coded character set. The type of error is indicated by the *reason-code*:

- 8** Length exception (for example, expansion required for PC MIXED data exceeds the maximum length of the string).
- 12** Invalid code point (for example, use of the ERRORBYTE option of SYSSTRINGS).
- 16** Form exception (for example, invalid MIXED data).
- 20** Conversion procedure error (for example, an exit set the length control field of the string to an invalid value).
- 24** SBCS character found in string contained in a wchar_t host variable.

If the *reason-code* is 12, *code-point* is the invalid code point. Otherwise, *code-point* is either blank or an additional *reason-code* returned by an exit. If the string is the value of an input host variable, the *position-number* is the ordinality of the variable in the SQLDA. If the string is not the value of a host variable, the *position-number* is blank.

System Action: The statement cannot be executed.

Programmer Response: Take one of the following actions based on the *reason-code*

- If the *reason-code* is 8, extend the maximum length of the host variable to allow for the expansion that occurs when the string is converted.
- If the *reason-code* is 12, either change the convert table to accept the *code-point* or the data to eliminate the *code-point*.

- If the *reason-code* is 16 and the string is described as MIXED data, either change its description or the string to conform to the rules for well-formed mixed data.
- If the *reason-code* is 20, correct the conversion procedure.
- If the *reason-code* is 24, delete the SBCS character from the graphic string.

SQLSTATE: 22021

-331 A STRING CANNOT BE ASSIGNED TO A HOST VARIABLE BECAUSE IT CANNOT BE CONVERTED. REASON
reason-code, **CHARACTER** *code-point*,
POSITION *position-number*

Explanation: The operation required the conversion of a string to the coded character set of the host variable and a conversion error occurred. The type of error is indicated by the *reason-code*:

- 8 for length exception (e.g., expansion required for PC MIXED data exceeds the maximum length of the string).
- 12 for invalid *code-point* (e.g., use of the ERRORBYTE option of SYSSTRINGS).
- 16 for form exception (e.g., invalid MIXED data).
- 20 for conversion procedure error (e.g., an exit set the length control field of the string to an invalid value).

If the *reason-code* is 12, *code-point* is the invalid *code-point*. Otherwise, *code-point* is blank. The *position-number* is the ordinality of the output variable in the SQLDA.

System Action: The statement cannot be executed.

Programmer Response: Take one of the following actions based on the *reason-code*:

- If the *reason-code* is 8, the maximum length of the result column must be extended to allow for the expansion that occurs when the string is converted.
- If the *reason-code* is 12, either the conversion table must be changed to accept the *code-point* or the data must be changed to eliminate the *code-point*.
- If the *reason-code* is 16, and the string is described as MIXED data, either its description must be changed or the string must be changed to conform to the rules for well-formed MIXED data.
- If the *reason-code* is 20, the conversion procedure must be corrected.

An alternative to these corrective actions is to provide an indicator variable so that a null value and a warning can be returned rather than an error. Refer to Chapter 2 of *DB2 SQL Reference* for more information on coded character set.

SQLSTATE: 22021

-332 CHARACTER CONVERSION BETWEEN CCSID *from-ccsid* **TO** *to-ccsid*
REQUESTED BY *reason-code* **IS NOT SUPPORTED**

Explanation: The operation required a conversion between two different CCSIDs, but no conversion support was found.

This error may occur if one CCSID is 65535 (BIT data) and the other CCSID is a graphic CCSID. Conversion is not defined between 65535 and a graphic CCSID.

from-ccsid identifies the coded character set of the string to be converted.

to-ccsid identifies the coded character set to which it must be converted.

reason code describes the reason codes returned from DB2. Reason codes returned from DB2 begin with 'DSN' and identify the context in which the conversion was requested. Values other than those that start with 'DSN' are returned from other DB2 platforms and are described in the documentation for the platform.

System Action: The statement cannot be processed.

Programmer Response: If the conversion request is correct, refer to Appendix B of DB2 Installation Guide for information on how to add conversion support.

SQLSTATE: 57017

-333 THE SUBTYPE OF A STRING VARIABLE IS NOT THE SAME AS THE SUBTYPE KNOWN AT BIND TIME AND THE DIFFERENCE CANNOT BE RESOLVED BY CONVERSION CHARACTER

Explanation: The CCSID in the run time SQLDA is inconsistent with the bind time subtype of the host variable or parameter marker. Either the run time description is BIT and the bind time description was not BIT, or the run time description is not BIT and the bind time description was BIT.

System Action: The statement cannot be executed.

Programmer Response: Change the CCSID in the SQLDA so that the subtype of the host variable is consistent with the bind time subtype of the host variable or parameter marker. If the input data in error is a parameter marker, you can use the DESCRIBE INPUT SQL statement to determine the expected SQLTYPE, SQLLEN and CCSID expected. Refer to Chapter 2 of *DB2 SQL Reference* for more information on coded character set.

SQLSTATE: 56010

-336 THE SCALE OF THE DECIMAL NUMBER MUST BE ZERO

Explanation: The decimal number is used in a context where the scale must be zero. This can occur when a decimal number is specified in a CREATE or ALTER SEQUENCE statement for START WITH, INCREMENT BY, MINVALUE, MAXVALUE, or RESTART WITH.

Programmer Response: Change the decimal number so that there are no non-zero digits to the right of the decimal point.

SQLSTATE: 428FA

-338 AN ON CLAUSE IS INVALID

Explanation: This return code reports a violation of one of the following:

- One expression of the predicate must only reference columns of one of the operand tables of the associated join operator, full join, and the other expression of the predicate must only reference columns of the other operand table.
- A VALUE or COALESCE function is allowed in the ON clause only when the join operator is a FULL OUTER JOIN or FULL JOIN.
- An operator other than '=' is not allowed in a FULL OUTER JOIN or FULL JOIN.
- A subquery is not allowed in the ON clause.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax so that it doesn't violate any of the above items within the ON clause

SQLSTATE: 42972

-340 THE COMMON TABLE EXPRESSION *name* HAS THE SAME IDENTIFIER AS ANOTHER OCCURRENCE OF A COMMON TABLE EXPRESSION DEFINITION WITHIN THE SAME STATEMENT

Explanation: The common table expression name *name* is used in the definition of more than one common table expressions in the statement. The name used to describe a common table expression must be unique within the same statement.

System Action: The statement cannot be executed.

Programmer Response: Correct the error by changing the name of one of the common table expressions.

SQLSTATE: 42726

-341 A CYCLIC REFERENCE EXISTS BETWEEN THE COMMON TABLE EXPRESSIONS *name1* AND *name2*

Explanation: The common table expression *name1* refers to *name2* in a FROM clause within its fullselect and *name2* refers to *name1* in a FROM clause within its fullselects. Such forms of cyclic references are not allowed.

System Action: The statement cannot be executed.

Programmer Response: Remove the cyclic reference from one of the common table expressions.

SQLSTATE: 42835

-342 THE COMMON TABLE EXPRESSION *name* MUST NOT USE SELECT DISTINCT AND MUST USE UNION ALL BECAUSE IT IS RECURSIVE

Explanation: There are two possible explanations:

- A fullselect within the common table expression *name* cannot start with SELECT DISTINCT because the common table expression is recursive.
- A fullselect within the common table expression *name* specified UNION instead of UNION ALL as required for recursive common table expressions.

System Action: The statement cannot be executed.

Programmer Response: Remove the keyword DISTINCT from the common table expression, add the keyword ALL following UNION, or remove the recursive reference within the common table expression.

SQLSTATE: 42925

-343 THE COLUMN NAMES ARE REQUIRED FOR THE RECURSIVE COMMON TABLE EXPRESSION *name*

Explanation: The recursive common table expression name *name* must include the specification of the column names following the identifier of the common table expression.

System Action: The statement cannot be executed.

Programmer Response: Add column names following the identifier of the common table expressions.

SQLSTATE: 42908

-344 THE RECURSIVE COMMON TABLE EXPRESSION *name* HAS MISMATCHED DATA TYPES OR LENGTHS FOR COLUMN *column-name*

Explanation: The recursive common table expression name *name* has a column *column-name* that is referred to in the iterative fullselect of the common table expression. The data type and length are set based on

the initialization fullselect for this column. The result of the expression for the column *column-name* in the iterative fullselect has a different data type or length that may result in failure to assign the value for the column.

System Action: The statement cannot be executed.

Programmer Response: Correct the column used in the fullselects of the recursive common table expression so that the initialization column matches the iterative columns.

SQLSTATE: 42825

-345 THE FULLSELECT OF THE RECURSIVE COMMON TABLE EXPRESSION *name* MUST BE THE UNION OF TWO OR MORE FULLSELECTS AND MUST NOT INCLUDE COLUMN FUNCTIONS, GROUP BY CLAUSE, HAVING CLAUSE, OR AN EXPLICIT JOIN INCLUDING AN ON CLAUSE

Explanation: The common table expression *name* includes a reference to itself and therefore:

- must be the union of two or more fullselects.
- cannot include a GROUP BY clause.
- cannot have column functions.
- cannot include a HAVING clause.
- and cannot include an explicit join with an ON clause.

System Action: The statement cannot be executed.

Programmer Response: Change the common table expression by:

- making it a union of two or more fullselects.
- removing any column functions, GROUP BY clause, HAVING clause, or explicit JOIN including an ON clause.
- removing the recursive reference.

SQLSTATE: 42836

-346 AN INVALID REFERENCE TO COMMON TABLE EXPRESSION *name* OCCURS IN THE FIRST FULLSELECT, AS A SECOND OCCURRENCE IN THE SAME FROM CLAUSE, OR IN THE FROM CLAUSE OF A SUBQUERY

Explanation: The common table expression *name* includes an invalid reference to itself as described by one of the following:

- A recursive reference in the first fullselect before the UNION ALL set operator. The first fullselect must be an initialization and cannot include a recursive reference.

- More than one reference to the same common table expression in the same FROM clause. Such references are not permitted in recursive common table expression.

- A recursive reference in the FROM clause of a subquery. A recursion cycle cannot be defined using a subquery.

System Action: The statement cannot be executed.

Programmer Response: Change one of the following:

- the fullselect prior to the union operator so that it does not include a recursive reference.
- the FROM clause containing more than one reference to the same common table expression to just one reference .
- the FROM clause of the subquery so that it does not reference the common table expression.

SQLSTATE: 42836

-348 *sequence-expression* CANNOT BE SPECIFIED IN THIS CONTEXT

Explanation: The statement contains a NEXT VALUE expression or PREVIOUS VALUE expression in an invalid context.

The NEXT VALUE expression or PREVIOUS VALUE expression cannot be specified in the following contexts:

- Join condition of a full outer join
- DEFAULT value for a column in a CREATE TABLE or ALTER TABLE statement
- Column definition that is generated in a CREATE TABLE or ALTER TABLE statement
- Materialized query table definition in a CREATE TABLE or ALTER TABLE statement
- Condition of a CHECK constraint
- Input value-specification for LOAD
- CREATE VIEW statement

NEXT VALUE expressions cannot be specified in the following contexts:

- CASE expression
- Parameter list of an aggregate function
- Subquery in a context in which it is not otherwise allowed
- SELECT statement for which the outer SELECT contains a DISTINCT operator or a GROUP BY clause
- SELECT statement for which the outer SELECT is combined with another SELECT statement using the UNION set operator
- Join condition of a join
- Nested table expression
- Parameter list of a table function
- SELECT clause of the fullselect of an expression in the SET clause of an UPDATE statement

- ORDER BY clause of the outer-most SELECT statement
- IF, WHILE, DO ... UNTIL, or CASE statement in an SQL routine

Programmer Response: Remove the reference to the sequence expression and resubmit the statement.

SQLSTATE: 428F9

-350 INVALID SPECIFICATION OF A LARGE OBJECT COLUMN

Explanation: The ALTER TABLE, CREATE TABLE, or CREATE INDEX statement is invalid for one of the following reasons:

- A LOB column cannot be added to a temporary table.
- A LOB column cannot be added to a table defined with an EDITPROC.
- The *PRIMARY KEY* clause cannot specify a LOB column as a column of the primary key.
- The *UNIQUE* clause cannot specify a LOB column as a column of the unique key.
- The *referential-constraint* clause cannot specify a LOB column as a column of a foreign key.
- A LOB column cannot be specified in a *references* clause.
- The CREATE INDEX statement cannot name a LOB column as a column of the index key.
- When specifying PARTITIONING KEY, LOB columns cannot be specified when defining the partitioning key.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax and resubmit the statement.

SQLSTATE: 42962

-351 AN UNSUPPORTED SQLTYPE WAS ENCOUNTERED IN POSITION *position-number* OF THE SELECT-LIST

Explanation: *position-number* is the position of the first element in the SQLDA with an unsupported data type. Either the application requestor or the application server does not have support for this type. This error can only occur in a client/server environment.

System Action: The statement cannot be executed.

Programmer Response: Change the statement to exclude the unsupported data type. For a select statement, remove the names of any columns in the select-list with the unsupported data types.

SQLSTATE: 56084

-352 AN UNSUPPORTED SQLTYPE WAS ENCOUNTERED IN POSITION *position-number* OF THE INPUT-LIST

Explanation: The input SQLDA for an OPEN, EXECUTE, FETCH, or CALL statement contains an unsupported SQLTYPE for the parameter in position *position-number*. *position-number* is the position of the first element in the SQLDA with an unsupported data type. Either the application requestor or the application server does not have support for this data type. This error can only occur in a client/server environment.

System Action: The statement cannot be executed.

Programmer Response: Change the SQLDA to exclude the unsupported data type.

SQLSTATE: 56084

-353 FETCH IS NOT ALLOWED, BECAUSE CURSOR *cursor-name* HAS AN UNKNOWN POSITION

Explanation: The cursor position for *cursor-name* is unknown. The previous multiple-row-fetch for cursor *cursor-name* resulted in an error in the middle of processing multiple rows that were retrieved from DB2. One or more of the requested rows could not be returned to the program following the error, leaving the position of the cursor unknown. The error may have been detected at the requester. For example a row with a null value was returned to an application, but no indicator variable was provided. A subsequent FETCH statement would result in SQLCODE -353. If an indicator had been provided, a positive SQLCODE would have been returned and all of the rows retrieved from DB2 could have been returned to the application program.

System Action: The statement cannot be processed. The cursor position is not changed.

Programmer Response: Close and reopen the cursor to reset the cursor position. For scrollable cursors, you can change the FETCH statement to specify one of the other fetch orientations such as FIRST, LAST, BEFORE, AFTER, ABSOLUTE, FIRST ROWSET, LAST ROWSET, or ROWSET STARTING AT ABSOLUTE to establish a valid rowset cursor position, and fetch data. Alternately, change the application to correct the error that originally occurred. For example, if the error was issued because an indicator was not provided, change the application to provide an indicator.

SQLSTATE: 24513

-355 A LOB COLUMN IS TOO LARGE TO BE LOGGED

Explanation: One of the following has occurred:

- a CREATE TABLE statement for an auxiliary table stores a BLOB, CLOB or DBCLOB column whose

length exceeds 1 gigabyte but whose associated LOB table space was defined with the LOG YES attribute

- an ALTER TABLESPACE statement of a LOB table space specifies the LOG YES clause but the auxiliary table in the LOB table space stores a BLOB or CLOB column whose length exceeds 1 gigabyte or a DBCLOB column whose length exceeds 500 megabyte characters

System Action: The statement cannot be executed.

Programmer Response: Either change the attribute of the LOB table space to LOG NO or drop the base table, and recreate it with columns of an acceptable length for logging.

SQLSTATE: 42993

-359 THE RANGE OF VALUES FOR THE IDENTITY COLUMN OR SEQUENCE IS EXHAUSTED

Explanation: DB2 attempted to generate a value for an identity column or a sequence object. However, all allowable values have already been assigned.

System Action: The statement cannot be processed.

Programmer Response: Take one of the following actions:

- For an identity column, redefine the table with a larger range of values for the identity column. If a MAXVALUE or MINVALUE specification has been made that limits the range of values to be less than the range for the data type of the column, then the column can be altered to expand the range of valid values. Otherwise, the identity column must be recreated, which requires that the table be recreated. First, drop the existing table; then, recreate the table with a different data type for the identity column, specifying a data type that has a larger range of values than the current data type for the identity column.
- For a sequence object, redefine the sequence with a larger range of values. If a MAXVALUE or MINVALUE specification has been made that limits the range of values to be less than the range for the data type, then the sequence can be altered to expand the range of valid values. Otherwise, the sequence must be recreated using DROP SEQUENCE and CREATE SEQUENCE to cover a larger range of values.

SQLSTATE: 23522

-372 ONLY ONE ROWID OR IDENTITY COLUMN IS ALLOWED IN A TABLE

Explanation: An attempt was made to do one of the following:

- Create a table with more than one ROWID column.

- Add a ROWID column to a table that already has one.
- Create a table with more than one identity column.
- Add an identity column to a table that already has one.
- Create a table with more than one security label column.
- Add a security label column to a table that already has one.

System Action: The statement was not executed.

Programmer Response: For a CREATE TABLE statement, select only one column to have the row ID data type or the AS IDENTITY attribute. For an ALTER TABLE statement, a ROWID column or identity column already exists for the table. Do not attempt to add another column with the data type row ID or with the AS IDENTITY attribute to the table.

SQLSTATE: 428C1

-373 DEFAULT CANNOT BE SPECIFIED FOR IDENTITY COLUMN OR SECURITY LABEL *columnname-seclabel*

Explanation: A DEFAULT clause may not be specified for a column that has been identified as an IDENTITY column or a security label column

System Action: The statement cannot be executed.

Programmer Response: Remove the DEFAULT clause and resubmit the statement.

SQLSTATE: 42623

-390 THE FUNCTION *function-name*, SPECIFIC NAME *specific-name*, IS NOT VALID IN THE CONTEXT IN WHICH IT OCCURS

Explanation: A function resolved to a specific function that is not valid in the context where it is used. If *specific-name* is an empty string, then the function resolved to the built-in function identified by *function-name*. Some of the possible situations include:

- A scalar or aggregate function is referenced where only a table function is allowed (such as in the FROM clause of a query).
- A table function is referenced where only a scalar or aggregate function is allowed (such as in an expression, or in a SOURCE clause of a CREATE FUNCTION statement).

System Action: The statement cannot be executed.

Programmer Response: Ensure that the correct function name and arguments are specified and that the SQL path includes the schema where the correct function is defined. You may need to change the function name, arguments, SQL path (using SET CURRENT PATH or the PATH bind option), or change

the context in which the function is used. Refer to Chapter 5 of *DB2 SQL Reference* for information on the use of functions.

SQLSTATE: 42887

**-392 SQLDA PROVIDED FOR CURSOR
cursor HAS BEEN CHANGED FROM
THE PREVIOUS FETCH**

Explanation: The application is running with *DB2 rules*, and has requested that LOB data be returned as a LOB in one FETCH statement, and as a locator in another FETCH statement. This is not permitted.

System Action: The statement is not executed and the connection is terminated.

Programmer Response: Either do not use *DB2 rules*, or change to application to not change the data type code from LOB to locator (or the reverse) in the SQLDA between successive fetches.

SQLSTATE: 42855

**-393 THE CONDITION OR CONNECTION
NUMBER IS INVALID**

Explanation: The value of the CONDITION or CONNECTION number that was specified in the GET DIAGNOSTICS statement is either less than zero, or greater than the number of available diagnostics.

System Action: The statement cannot be processed.

Programmer Response: Correct the value of the CONDITION or CONNECTION number, while ensuring that the number is between 1 and the value of the NUMBER statement-information item or GET DIAGNOSTICS. Resubmit the GET DIAGNOSTICS CONDITION or GET DIAGNOSTICS CONNECTION statement.

SQLSTATE: 35000

**-396 *object-type object-name* ATTEMPTED TO
EXECUTE AN SQL STATEMENT
DURING FINAL CALL PROCESSING**

Explanation: A user-defined function named *object-name* was invoked and attempted to execute an SQL statement (other than CLOSE CURSOR) during final call processing, but the statement is not allowed.

System Action: The SQL statement cannot be executed.

Programmer Response: Change the definition of the function to not issue SQL statements during final call processing.

SQLSTATE: 38505

**-397 GENERATED IS SPECIFIED WITH A
COLUMN THAT IS NOT A ROW ID, A
DISTINCT TYPE BASED ON A ROW ID,
OR AN IDENTITY COLUMN**

Explanation: GENERATED was specified in a CREATE or ALTER TABLE statement for a column with a data type that is not a row ID, a distinct type that is based on a row ID, or an identity column. GENERATED can only be specified for a column with a data type of row ID, a distinct type that is based on a row ID, or an identity column.

System Action: The statement cannot be processed.

Programmer Response: Correct the statement. Either eliminate the GENERATED clause or change the data type of the column ensure that the data type of the object is row ID, or that the column is an identity column

SQLSTATE: 428D3

**-398 A LOCATOR WAS REQUESTED FOR
HOST VARIABLE NUMBER
position-number BUT THE VARIABLE IS
NOT A LOB**

Explanation: The application requested that a locator be returned from host variable number *position-number*. A locator can only be used with LOB data, and the requested data is not a LOB.

System Action: The statement cannot be executed.

Programmer Response: Change the statement to either return LOB data, or change the target host variable to not be a locator.

SQLSTATE: 428D2

**-399 ATTEMPTED TO INSERT AN INVALID
VALUE INTO A ROWID COLUMN**

Explanation: When inserting into a table, a value specified for a ROWID column was invalid. Only row ID values previously generated by DB2 are valid.

System Action: The INSERT is not performed.

Programmer Response: Do not attempt to generate any value for insertion into a ROWID column. Insertion into ROWID columns is supported for purposes of Data Propagation, where DB2 has previously generated the row ID values. Only row ID values previously generated by DB2 can be used as values for insertion into a row ID column. Alternatively, insert the row specifying DEFAULT for the ROWID column or remove the ROWID column from the insert column-list.

You may also use the OVERRIDING clause as a possible solution for this situation. See INSERT in DB2 SQL Reference for more information about the OVERRIDING USER VALUE clause.

SQLSTATE: 22511

-400 THE CATALOG HAS THE MAXIMUM NUMBER OF USER DEFINED INDEXES

Explanation: Only one hundred user-defined indexes can be created in the catalog database.

System Action: The statement cannot be executed.

Programmer Response: If this index must be created, another user-defined index on the catalog must be dropped. After that index is dropped, this statement can be executed.

SQLSTATE: 54027

-401 THE OPERANDS OF AN ARITHMETIC OR COMPARISON OPERATION ARE NOT COMPARABLE

Explanation: An arithmetic operation appearing within the SQL statement contains a mixture of numeric and non-numeric operands, or the operands of a comparison operation are not compatible.

One reason for this error is that the comparison involves both *character* and *graphic* operands. This combination of operands is not allowed for EBCDIC and ASCII data. For Unicode data, this combination of operands is not allowed if a field procedure exists on one of the columns.

System Action: The statement cannot be executed.

Programmer Response: Check the data types of all operands to ensure that their data types are comparable and compatible with their usage in the statement.

If all the operands of the SQL statement are correct, then, if a view is being accessed, check the data types of all the operands in the view definition.

SQLSTATE: 42818

-402 AN ARITHMETIC FUNCTION OR OPERATOR *arith-fop* IS APPLIED TO CHARACTER OR DATETIME DATA

Explanation: A nonnumeric operand has been specified for the arithmetic function or operator *arith-fop*.

System Action: The statement cannot be executed.

Programmer Response: Examine and correct the syntax of the SQL statement such that all operands of the specified function or operator are numeric.

SQLSTATE: 42819

-404 THE SQL STATEMENT SPECIFIES A STRING THAT IS TOO LONG

Explanation: An INSERT, UPDATE, CALL, VALUES INTO, SET, parameter, host variable, or transition variable statement specifies a value that is longer than the maximum length string that can be stored in the target column.

System Action: The statement cannot be executed.

Programmer Response: Check the length of the target column, parameter, host variable or transition variable and correct the program or SQL statement so that the length of the string does not exceed that maximum. For example, you could use the SUBSTR function to shorten the string.

SQLSTATE: 22001

-405 THE NUMERIC LITERAL *literal* CANNOT BE USED AS SPECIFIED BECAUSE IT IS OUT OF RANGE

Explanation: The numeric *literal* is not in the proper range.

The proper ranges for SQL values are as follows:

- 5.4E-79 to 7.2E+75 for FLOAT values
- $-(10^{31} - 1)$ to $+(10^{31} - 1)$ for DECIMAL values
- -2147483648 to 2147483647 for INTEGER values
- -32768 to +32767 for small integer (SMALLINT) values.

System Action: The statement cannot be executed.

Programmer Response: The value of *literal* should be reduced to the appropriate size for this data type.

SQLSTATE: 42820

-406 A CALCULATED OR DERIVED NUMERIC VALUE IS NOT WITHIN THE RANGE OF ITS OBJECT COLUMN

Explanation: A value derived or calculated during processing of the SQL statement was outside the range of the data type of its object column. This problem might have arisen because either the values occurring in the object column were out of range, or the SQL operation performed was not appropriate for the values in the object column.

System Action: The statement cannot be executed.

Programmer Response: See the explanation of SQLCODE -405 for allowed ranges for numeric data types.

SQLSTATE: 22003

-407 AN UPDATE, INSERT, OR SET VALUE IS NULL, BUT THE OBJECT COLUMN *column-name* CANNOT CONTAIN NULL VALUES

Explanation: One of the following conditions occurred:

- A null insert or update value was specified for a column defined as NOT NULL.
- No insert value was provided for a column that does not have a default value.
- A SET transition variable statement specified a NULL value for column defined as NOT NULL.

- The insert value was DEFAULT, but the object column was declared as NOT NULL without WITH DEFAULT in the table definition. Consequently, a default value of NULL cannot be inserted into that column.
- A null insert value was specified for a ROWID column.

System Action: The statement cannot be executed. The 'column-name' might be returned in the SQLCA, depending on the syntax of the SQL statement in which the error was detected.

Programmer Response: Examine the definition of the object table to determine which columns of the table have the NOT NULL attribute or have a type of ROWID, and correct the SQL statement accordingly.

SQLSTATE: 23502

-408 THE VALUE IS NOT COMPATIBLE WITH THE DATA TYPE OF ITS TARGET. TARGET NAME IS *name*

Explanation: The data type of the value to be assigned to the column, parameter, host variable or transition variable by the SQL statement is incompatible with the declared data type of the assignment target. Both must be:

- Numeric
- Character
- Graphic
- Dates or character
- Times or character
- Timestamps or character
- Row IDs
- The same distinct types

However, dates, times, or timestamps cannot be assigned to a character column that has a field procedure. Also note that character and graphic data types are compatible when using Unicode.

This SQLCODE is issued for any statement that fails required assignment rule checking.

System Action: The statement cannot be executed.

Programmer Response: Examine the current definition for the object table, procedure, user-defined function, or host variable and ensure that the host variable or literal value that is assigned to the object has the proper data type. In some cases, you can convert the value to the proper data type by using a function such as CHAR or DECIMAL.

SQLSTATE: 42821

-409 INVALID OPERAND OF A COUNT FUNCTION

Explanation: The operand of the COUNT or COUNT_BIG function in the statement violates SQL syntax. A common error is a column name or other expression without DISTINCT.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax and resubmit the statement. Refer to Chapter 3 of *DB2 SQL Reference* for information about the proper form for the operands of a COUNT or COUNT_BIG function.

SQLSTATE: 42607

-410 THE FLOATING POINT LITERAL *literal* CONTAINS MORE THAN 30 CHARACTERS

Explanation: The specified floating-point literal is more than 30 characters in length. A floating-point literal has a maximum length of 30 characters.

System Action: The statement cannot be executed.

Programmer Response: Correct the indicated literal.

SQLSTATE: 42820

-411 CURRENT SQLID CANNOT BE USED IN A STATEMENT THAT REFERENCES REMOTE OBJECTS

Explanation: A reference to the CURRENT SQLID special register is invalid in a statement that contains the three-part name or alias of an object that is remote to the remote server.

System Action: The statement cannot be executed.

Programmer Response: Either remove the reference to CURRENT SQLID or the reference to the remote object.

SQLSTATE: 56040

-412 THE SELECT CLAUSE OF A SUBQUERY SPECIFIES MULTIPLE COLUMNS

Explanation: In the context in which it was used in the SQL statement, the subquery can have only one column specified in its SELECT clause.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax of the SQL statement. Refer to Chapter 4 of *DB2 SQL Reference* for information about restrictions on the syntax for subqueries.

SQLSTATE: 42823

**-413 OVERFLOW OCCURRED DURING
NUMERIC DATA TYPE CONVERSION**

Explanation: During processing of the SQL statement, an overflow condition arose when converting from one numeric type to another. Numeric conversion is performed according to the standard rules of SQL.

System Action: The statement cannot be processed. No data was retrieved, updated, or deleted.

Programmer Response: Examine the syntax of the SQL statement to determine the cause of the error. If the problem is data-dependent, it might be necessary to examine the data processed at the time of the error.

SQLSTATE: 22003

**-414 A LIKE PREDICATE IS INVALID
BECAUSE THE FIRST OPERAND IS
NOT A STRING**

Explanation: The data type of the first operand of the LIKE predicate must be a character string or graphic string.

System Action: The statement cannot be executed.

Programmer Response: Respecify the predicate so that the data type of each operand is a character string or a graphic string.

SQLSTATE: 42824

**-415 THE CORRESPONDING COLUMNS,
column-number, OF THE OPERANDS OF
A UNION OR A UNION ALL DO NOT
HAVE COMPARABLE COLUMN
DESCRIPTIONS**

Explanation: The column descriptions of corresponding columns of the operands of a UNION or UNION ALL must be comparable. The columns of ordinality 'column-number' of the operands in this UNION or UNION ALL do not satisfy this requirement. For columns to be comparable, they must both be either numeric, character, graphic, date, time, or timestamp. They cannot be a mixture of these groups. If corresponding columns have field procedures, they must both have the same field procedure.

System Action: The statement cannot be executed.

Programmer Response: Check the data types of the specified columns and correct the UNION or UNION ALL statement so that all corresponding columns have comparable column descriptions.

SQLSTATE: 42825

**-416 AN OPERAND OF A UNION CONTAINS
A LONG STRING COLUMN**

Explanation: The UNION specified in the SQL statement could not be performed because one of the tables participating in the union contains a long string column. The operands of a UNION cannot contain long string columns.

System Action: The statement cannot be executed.

Programmer Response: The implied function is not supported by DB2. Refer to Chapter 2 of *DB2 SQL Reference* for information about restrictions on the manipulation of long string columns.

SQLSTATE: 42907

**-417 A STATEMENT STRING TO BE
PREPARED INCLUDES PARAMETER
MARKERS AS THE OPERANDS OF
THE SAME OPERATOR**

Explanation: The statement string specified as the object of a PREPARE contains a predicate or expression where parameter markers have been used as operands of the same operator—for example:

? > ?

This syntax is not permitted.

System Action: The statement cannot be executed.

Programmer Response: Correct the logic of the application program so that this syntax error does not occur. Refer to Chapter 5 of *DB2 SQL Reference* for information about the proper usage of parameter markers within SQL statements to be prepared.

SQLSTATE: 42609

**-418 A STATEMENT STRING TO BE
PREPARED CONTAINS AN INVALID
USE OF PARAMETER MARKERS**

Explanation: Parameter markers cannot be used in the SELECT list, as the sole argument of a scalar function, or in a concatenation operation. Parameter markers cannot be used in the string expression of an EXECUTE IMMEDIATE SQL statement.

System Action: The statement cannot be executed.

Programmer Response: Correct the logic of the application program so that this error does not occur. Refer to Chapter 5 of *DB2 SQL Reference* for information about the proper usage of parameter markers within SQL statements and for EXECUTE IMMEDIATE SQL statement restrictions.

SQLSTATE: 42610

-419 THE DECIMAL DIVIDE OPERATION IS INVALID BECAUSE THE RESULT WOULD HAVE A NEGATIVE SCALE

Explanation: The decimal division is invalid because it will result in a negative scale.

The formula used internally to calculate the scale of the result for decimal division is explained in Chapter 2 of *DB2 SQL Reference*.

System Action: The statement cannot be executed. No data was retrieved, updated, or deleted.

Programmer Response: Examine the precision and scale of all columns that may have participated in a decimal division. Note that an integer or small integer value may have been converted to decimal for this calculation.

SQLSTATE: 42911

-420 THE VALUE OF A STRING ARGUMENT WAS NOT ACCEPTABLE TO THE *function-name* FUNCTION

Explanation: A string argument did not conform to the requirements of the function. For example, a character string passed to the DECIMAL function did not conform to the rules for forming an SQL integer or decimal constant.

System Action: The statement cannot be processed.

Programmer Response: Change the argument value so that it conforms to the requirements of the function as specified in *DB2 SQL Reference*.

SQLSTATE: 22018

-421 THE OPERANDS OF A UNION OR UNION ALL DO NOT HAVE THE SAME NUMBER OF COLUMNS

Explanation: The operands of a UNION or UNION ALL must have the same number of columns.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement so that there are exactly the same number of columns in each operand.

SQLSTATE: 42826

-423 INVALID VALUE FOR LOCATOR IN POSITION *position-#*

Explanation: The value specified in a result set locator host variable, a LOB locator host variable, or a table locator that is specified at position *position-#* in the locator variable list of the SQL statement does not identify a valid result set locator, LOB locator variable, or table locator, respectively.

System Action: The statement cannot be executed.

Programmer Response: For a result set locator there are two common causes for the error:

- The host variable used as a result set locator was never assigned a valid result set locator value. Result set locator values are returned by the DESCRIBE PROCEDURE and ASSOCIATE LOCATORS statements. Make sure the value in your host variable is obtained from one of these statements.
- Result set locator values are only valid as long as the underlying SQL cursor is open. If a commit or rollback operation closes an SQL cursor, the result set locator associated with the cursor is no longer valid.

For a LOB locator, some common causes for the error are:

- The host variable used as a LOB locator was never assigned a valid LOB value.
- A commit or rollback operation or an SQL FREE LOCATOR statement freed the locator.

For a table locator, the error commonly occurs when the host variable that was used as a table locator was never assigned a valid table locator value.

SQLSTATE: 0F001

-426 DYNAMIC COMMIT NOT VALID AT AN APPLICATION SERVER WHERE UPDATES ARE NOT ALLOWED

Explanation: An application executing using DRDA protocols has attempted to issue a dynamic COMMIT statement, or a stored procedure has attempted to issue a COMMIT_ON_RETURN, while connected to a location at which updates are not allowed. A dynamic COMMIT or COMMIT_ON_RETURN can be issued only while connected to a location at which updates are allowed.

System Action: The statement cannot be executed. No COMMIT is performed.

Programmer Response: The IMS or CICS protocols should be used to commit work in these environments.

SQLSTATE: 2D528

-427 DYNAMIC ROLLBACK NOT VALID AT AN APPLICATION SERVER WHERE UPDATES ARE NOT ALLOWED

Explanation: An application executing using DRDA protocols has attempted to issue a dynamic ROLLBACK statement while connected to a location at which updates are not allowed. A dynamic ROLLBACK may be issued only while connected to a location at which updates are allowed.

System Action: The statement cannot be executed. No ROLLBACK is performed.

Programmer Response: The IMS or CICS protocols

should be used to rollback work in these environments.

SQLSTATE: 2D529

-430 *routine-type routine-name* (SPECIFIC NAME *specific-name*) HAS ABNORMALLY TERMINATED

Explanation: An abnormal termination has occurred while the routine *routine-name* (stored procedure or function) was in control.

System Action: The statement cannot be executed.

Programmer Response: The stored procedure or function needs to be fixed. Contact the author of the routine or your database administrator. Until it is fixed, the routine should not be used.

SQLSTATE: 38503

-433 VALUE *value* IS TOO LONG

Explanation: The value *value* required truncation by a system (built-in) cast or adjustment function, which was called to transform the value in some way. The truncation is not allowed where this value is used. The value being transformed is one of the following:

- an argument to a user defined function (UDF)
- an input to the SET clause of an UPDATE statement
- a value being INSERTed into a table
- an input to a cast or adjustment function in some other context.

If *value* has the 'for bit data' subtype, then the *value* is printed as a hexadecimal string in quotes followed by an X.

System Action: The statement cannot be executed.

Programmer Response: If *value* is a literal string in the SQL statement, it is too long for its intended use. If *value* is not a literal string, examine the SQL statement to determine where the transformation is taking place. Either the input to the transformation is too long, or the target is too short. Correct the problem and rerun the statement.

SQLSTATE: 22001

-435 AN INVALID SQLSTATE *sqlstate* IS SPECIFIED IN THE FUNCTION RAISE_ERROR OR IN A SIGNAL SQLSTATE STATEMENT

Explanation: The SQLSTATE specified in the RAISE_ERROR function or specified in a SIGNAL SQLSTATE statement of a trigger definition does not conform to the rules for an application defined SQLSTATE.

System Action: The statement cannot be processed.

Programmer Response: Correct the SQLSTATE

specified in the RAISE_ERROR function or SIGNAL statement. The SQLSTATE must be a character string containing exactly 5 characters. It must be of type CHAR defined with a length of 5, or a type VARCHAR defined with a length of 5 or greater. The SQLSTATE value must follow the rules for application-defined SQLSTATEs as follows:

- Each character must be from the set of digits ('0' through '9') or non-accented upper case letters ('A' through 'Z').
- The SQLSTATE class (first two characters) cannot be '00', '01' or '02' because these are not error classes.
- If the SQLSTATE class (first two characters) starts with the character '0' through '6' or 'A' through 'H', then the subclass (last three characters) must start with a letter in the range 'I' through 'Z'.
- If the SQLSTATE class (first two characters) starts with the character '7', '8', '9' or 'I' through 'Z', then the subclass (last three characters) can be any of '0' through '9' or 'A' through 'Z'.

SQLSTATE: 428B3

-438 APPLICATION RAISED ERROR WITH DIAGNOSTIC TEXT: *text*

Explanation: This error occurred as a result of execution of the RAISE_ERROR function or as a result of the SIGNAL SQLSTATE statement.

text Diagnostic text provided by the invocation of the RAISE_ERROR function or the SIGNAL SQLSTATE statement.

System Action: The statement cannot be processed.

Programmer Response: Use application-provided diagnostic text, if provided, to determine the cause of the error.

SQLSTATE: application-defined

-440 NO *routine-type* BY THE NAME *routine-name* HAVING COMPATIBLE ARGUMENTS WAS FOUND

Explanation: This occurs in a reference to routine (stored procedure or function) *routine-name*, when DB2 cannot find a function or stored procedure it can use to implement the reference. There are several reasons why this could occur.

- *routine-name* was either incorrectly specified or does not exist in the database.
- A qualified reference was made, and the qualifier was incorrectly spelled.
- A user's SQL path does not contain the schema to which the desired function belongs, and an unqualified reference was used.
- The wrong number of arguments were included.
- For functions, the data types of one or more of the arguments is incorrect.

- The routine invoker is not authorized to execute the routine.

System Action: The statement cannot be executed.

Programmer Response: Fix the problem and retry. This could involve a change to the SQL statement, the addition of new routines or a change to the user's SQL path.

SQLSTATE: 42884

-441 INVALID USE OF 'DISTINCT' OR 'ALL' WITH SCALAR FUNCTION
function-name

Explanation: The keyword 'DISTINCT' or 'ALL' was detected within parentheses in a reference to function *function-name* and the function has been resolved as a scalar function. Use of the keyword 'DISTINCT' or 'ALL' with a scalar function is invalid.

System Action: The statement cannot be executed.

Programmer Response: If a scalar function is being used, then remove the keyword 'DISTINCT' or 'ALL'.

If an aggregate function is being used, then there is a problem with function resolution. Check your SQL path to see if the desired function is in one of the schemas, and also check the SYSIBM.SYSROUTINES catalog for the spelling of the function name and the number and types of parameters.

SQLSTATE: 42601

-443 ROUTINE *routine-name* (SPECIFIC NAME *specific-name*) HAS RETURNED AN ERROR SQLSTATE WITH DIAGNOSTIC TEXT *msg-text*

Explanation: An SQLSTATE of the form 38xxx was returned by routine *routine-name*, along with message text *msg-text*.

If the third character is not 5 (for example, '385xx') then the last 3 characters of the SQLSTATE value were chosen by the function to indicate the reason of the failure. SQLSTATEs values of the form 385xx are issued by IBM with a different SQLCODE.

System Action: The actions in the external function should be rolled back.

Programmer Response: Contact the author of the function or your database administrator. Until the problem is resolved, the function should not be used.

SQLSTATE: 38xxx (the SQLSTATE that was returned by the routine).

-444 USER PROGRAM *name* COULD NOT BE FOUND

Explanation: DB2 received an SQL CALL statement for a stored procedure or an SQL statement containing an invocation of a user-defined function, and found the row in the SYSIBM.SYSROUTINES catalog table associated with the requested procedure name. However, the MVS load module identified in the EXTERNAL_NAME column of the SYSIBM.SYSROUTINES row could not be found.

name The name of the MVS load module that could not be found

System Action: The statement cannot be executed.

Programmer Response: If the EXTERNAL_NAME column value in the SYSIBM.SYSROUTINES table is incorrect, use the ALTER FUNCTION or ALTER PROCEDURE statement to correct the value.

If the EXTERNAL_NAME column value is correct, use the MVS linkage editor to create the required MVS load module in one of the MVS load libraries used by your installation for stored procedures.

This error can also occur if you are invoking a WLM-managed stored procedure that is not APF authorized, and the DB2 load libraries are not in the STEPLIB concatenation because they are being loaded from LINKLIST. In this case, if you want the stored procedure program to run APF-authorized, link-edit it with AC=1 into an MVS APF authorized library. If you do not want the stored procedure program to run APF authorized, add the DB2 load library to the STEPLIB concatenation of the JCL used to start the WLM-managed address space.

SQLSTATE: 42724

-449 CREATE OR ALTER STATEMENT FOR FUNCTION OR PROCEDURE *routine-name* CONTAINS AN INVALID FORMAT OF THE EXTERNAL NAME CLAUSE OR IS MISSING THE EXTERNAL NAME CLAUSE

Explanation: An error was found in the EXTERNAL NAME clause of the CREATE FUNCTION, CREATE PROCEDURE, ALTER FUNCTION, or ALTER PROCEDURE statement for *routine-name*, or the clause is needed but was not specified.

- For a LANGUAGE JAVA or COMPJAVA stored procedure, or LANGUAGE JAVA user-defined function, the name must be specified and it must contain a valid *external-java-routine-name* of the following form:

jar-name:package-id...class-id.method-id(method-signature)

- No blanks are permitted within the single quotes.
- For LANGUAGE COMPJAVA, do not specify a *jar-name*.

- The *method-name* consists of the list of *package-ids*, *class-id*, and *method-id*, and must not be longer than 254 bytes.
 - For LANGUAGE JAVA, zero or more *package-ids* may be specified, preceding the *class-id*. For LANGUAGE COMPJAVA, at least one *package-id* must be specified, preceding the *class-id*
 - The *method-signature* is optional, and is a list of Java data types that are separated by commas. If specified, the *method-signature* must not be longer than 1024 bytes.
 - If multiple *strings* are specified, the total length of all the *strings* concatenated together for the *external-java-routine-name* must not be greater than 1305.
- For external routines with a language other than JAVA or COMPJAVA, the external name must be a short identifier with letters or digits. The first character must be a letter. (This is the MVS naming convention for load modules). A possible cause for this error is the inclusion of a blank in the name.

If the clause is omitted, the external name defaults to *function-name*. However, for CREATE FUNCTION or CREATE PROCEDURE if the function or procedure name is longer than eight characters then the EXTERNAL NAME clause must be explicitly specified to specify a valid *short identifier* as the external name.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax of the SQL statement. Refer to the *DB2 SQL Reference* for information on the EXTERNAL NAME clause.

User Response: When LANGUAGE is JAVA or COMPJAVA, possible causes include:

- Omitting the EXTERNAL NAME clause.
- Including a blank.
- Having the '!' at the beginning or end of the name.
- Specifying an invalid *external-java-routine-name*.

SQLSTATE: 42878

-450 USER-DEFINED FUNCTION OR STORED PROCEDURE *name*, PARAMETER NUMBER *parmnum*, OVERLAYED STORAGE BEYOND ITS DECLARED LENGTH.

Explanation: Upon return from a specific function *name* or a stored procedure *name*, DB2 has detected an overlay storage beyond a parameter's declared length. The parameter number is specified for a stored procedure or function. This is not permitted.

System Action: The statement cannot be executed.

Programmer Response: Contact the author of the function or your database administrator. Until it is fixed, the function should not be used.

SQLSTATE: 39501

-451 THE *data-item* DEFINITION, IN THE CREATE FUNCTION FOR *function-name* CONTAINS DATA TYPE *type* WHICH IS NOT APPROPRIATE FOR AN EXTERNAL FUNCTION WRITTEN IN THE GIVEN LANGUAGE

Explanation: An error was made in the *data-item* part of the CREATE FUNCTION statement for *function-name*. The CREATE FUNCTION statement contained an invalid *type*, or it contained a distinct type which is based on the invalid *type*.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement.

SQLSTATE: 42815

-453 THERE IS A PROBLEM WITH THE RETURNS CLAUSE IN THE CREATE FUNCTION STATEMENT FOR *function-name*

Explanation: A problem casting the result of user-defined function *function-name* has been identified. The CAST FROM data type is not castable to the RETURNS data type, and it must be. See the *SQL Reference* for details on casting between data types.

System Action: The statement cannot be executed.

Programmer Response: Change the RETURNS or CAST FROM clause so that the CAST FROM data type is castable to the RETURNS data type.

SQLSTATE: 42880

-454 THE SIGNATURE PROVIDED IN THE CREATE FUNCTION STATEMENT FOR *function-name* MATCHES THE SIGNATURE OF SOME OTHER FUNCTION ALREADY EXISTING IN THE SCHEMA

Explanation: The signature consists of the function name (*function-name*), the number of parameters defined for the function, and an ordered list of the types of the parameters (without regard to any parameters of the types). In this case there is a function already in the schema and the existing function has the same signature as the function being created. See the *SQL Reference* for the details on the uniqueness of a function.

System Action: The statement cannot be executed.

Programmer Response: Determine if the existing function already provides the functionality desired. If not, then the new function's signature will have to be changed (e.g. change the function name).

SQLSTATE: 42723

-455 **IN CREATE FUNCTION FOR *function-name*, THE SCHEMA NAME *schema-name1* PROVIDED FOR THE SPECIFIC NAME DOES NOT MATCH THE SCHEMA NAME *schema-name2* OF THE FUNCTION**

Explanation: If the SPECIFIC name is specified as a two part name, the *schema-name1* portion must be the same as the *schema-name2* portion of the *function-name*. Note that the *schema-name2* portion of *function-name* may have been specified directly or it may have defaulted to the authorization ID of the statement.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement.

SQLSTATE: 42882

-456 **IN CREATE FUNCTION FOR *function-name*, THE SPECIFIC NAME *specific-name* ALREADY EXISTS IN THE SCHEMA**

Explanation: A SPECIFIC name has been explicitly specified as *specific-name* in the CREATE FUNCTION statement for *function-name*, but this name already exists as the SPECIFIC name for another function within the schema.

System Action: The statement cannot be executed.

Programmer Response: Choose a new SPECIFIC name.

SQLSTATE: 42710

-457 **A FUNCTION OR DISTINCT TYPE CANNOT BE CALLED *name* SINCE IT IS RESERVED FOR SYSTEM USE**

Explanation: The user-defined function or distinct type cannot be created or referenced because the name selected is reserved for use by the system.

A number of names used as keywords are reserved for system use. These names may not be used as user-defined functions or distinct-type-names, **even if they are delimited identifiers**. These names are:

=	<	>	>=	<=
	!=	->	->	
ALL	AND	ANY	BETWEEN	DISTINCT
EXCEPT	EXISTS	FALSE	FOR	FROM
IN	IS	LIKE	MATCH	NOT
NULL	ONLY	OR	OVERLAPS	SIMILAR
SOME	TABLE	TRUE	TYPE	UNIQUE
UNKNOWN				

The names of built-in data types cannot be used as the name of a distinct type (for example, CHAR).

System Action: The statement is not executed.

Programmer Response: Select a name for the function or distinct type that is not reserved for system use.

SQLSTATE: 42939

-458 **IN A REFERENCE TO FUNCTION *function-name* BY SIGNATURE, A MATCHING FUNCTION COULD NOT BE FOUND**

Explanation: In a reference to function *function-name* by signature, no matching function could be found. The problem could be with the data type or some other attributes of a parameter. For some data types there are attributes in addition to data type:

- Length, precision, or scale

While it is not necessary to specify a length, precision, or scale attribute for a data type, if one is specified then there must be an exact match on the corresponding specification of the parameter for the existing function as defined in SYSPARMS.

A type of FLOAT(*n*) does not need to match the defined value for *n* since 1<=*n*<=21 means REAL and 22<=*n*<=53 means DOUBLE. Matching occurs based on whether the type is REAL or DOUBLE.

However, a match on data type is sufficient.

To indicate this, an empty set of parentheses must be specified for the data types that allow a specification of length, precision, or scale. For example, assuming a function exists for which a parameter was defined as CHAR(12) on the CREATE FUNCTION statement, a reference to that function by a signature could specify this parameter as either CHAR(12), or CHAR(). The CHAR() syntax provides a way to say "don't care about length, precision and scale attributes in finding a matching function".

FLOAT() cannot be used since the parameter value indicates different data types (REAL or DOUBLE).

If, however, neither length, precision, scale, or empty parenthesis were specified, then normal default rules apply. For example, a specification of CHAR would result in CHAR(1) as on the CREATE TABLE statement. Furthermore, this implicit specification of length, precision, or scale must exactly match the corresponding specification of the parameter for the existing function as defined in SYSPARMS.

- Subtype, or encoding scheme

You do not need to specify the subtype or encoding scheme (CCSID clause) to identify an existing function in the database. However, if a subtype or encoding scheme is specified then there must be an exact match on the corresponding specification of the parameter for the existing function as defined in SYSPARMS.

Unqualified function names:

- For ALTER FUNCTION, DROP FUNCTION, COMMENT ON FUNCTION, GRANT and REVOKE

statements for EXECUTE on functions, an unqualified function name is implicitly qualified with the statement authorization ID, and this is the schema where the function with the problem can be found.

- In the SOURCE clause of a CREATE FUNCTION statement, the qualification comes from the SQL path. In this case, there is no matching function in the entire path.

Note: A function cannot be sourced on the COALESCE, NULLIF, RAISE_ERROR, or VALUE built-in functions. Additionally, there are restrictions on the way that you can source on the COUNT, COUNT_BIG, CHAR, and STRIP built-in functions because of some of the keywords that they accept.

System Action: The statement cannot be executed.

Programmer Response: Possible responses include:

- Changing the SQL path to include the correct schema.
- Changing the attributes of the parameters.
- Using a SPECIFIC name to refer to the function instead of a signature.

SQLSTATE: 42886

-461 A VALUE WITH DATA TYPE *source-data-type* CANNOT BE CAST TO TYPE *target-data-type*

Explanation: The statement contains a CAST with the first operand having a data type of *source-data-type* to be cast to the data type *target-data-type*. This is not supported.

Change the data type of either the source or target so that the cast is supported. For predefined (built-in) data types or a cast involving a user-defined distinct type, see the SQL Reference.

System Action: The statement could not be processed.

Programmer Response: Correct the CAST specification to specify a supported combination of source and target types.

SQLSTATE: 42846

-469 SQL CALL STATEMENT MUST SPECIFY AN OUTPUT HOST VARIABLE FOR PARAMETER *number*

Explanation: DB2 received an SQL CALL statement for a stored procedure. DB2 found the row in the SYSIBM.SYSROUTINES catalog table associated with the requested procedure name. However, parameter *number* was identified in the SYSIBM.SYSPARMS table as an OUT or INOUT parameter. A host variable must be supplied on the SQL CALL statement for parameters defined as OUT or INOUT.

number

The parameter number from the ORDINAL field in SYSIBM.SYSPARMS.

System Action: The statement cannot be executed.

Programmer Response: If the SQL CALL statement is coded incorrectly, modify the SQL application to provide an output host variable on the SQL CALL statement.

If the SYSIBM.SYSPARMS table contains incorrect information, the DROP PROCEDURE and CREATE PROCEDURE statements must be used to replace the catalog definition for the stored procedure.

SQLSTATE: 42886

-470 SQL CALL STATEMENT SPECIFIED A NULL VALUE FOR INPUT PARAMETER *number*, BUT THE STORED PROCEDURE DOES NOT SUPPORT NULL VALUES.

Explanation: DB2 received an SQL CALL statement for a stored procedure and found a null value in the incoming parameter list. The stored procedure was defined in the SYSIBM.SYSROUTINES catalog table with PARAMETER_STYLE of GENERAL, which specifies that the routine does not accept null values.

A call to a stored procedure with a LANGUAGE value of JAVA or COMPJAVA receives this SQLCODE if an input parameter in the compiled Java stored procedure has a Java base type that cannot be set to a null value.

number

The parameter number from the ORDINAL field in SYSIBM.SYSPARMS.

System Action: The statement cannot be executed.

Programmer Response: If the stored procedure should not accept null values, change the calling application to provide a nonnull value.

If the stored procedure should accept null values, use the ALTER PROCEDURE statement to change the PARAMETER STYLE of the stored procedure to be DB2SQL or GENERAL WITH NULLS.

SQLSTATE: 39004

-471 INVOCATION OF FUNCTION OR PROCEDURE *name* FAILED DUE TO REASON *rc*

Explanation: A routine was invoked. The routine invocation was not accepted because of DB2 reason code *rc*.

name The name of the routine that was invoked.

rc The DB2 reason code describing the cause of the failure.

System Action: The statement cannot be executed. A

DSNX9xx message describing the error might be displayed on the MVS system console.

Programmer Response: Correct the condition described by the DB2 reason code.

SQLSTATE: 55023

-472 CURSOR *cursor-name* WAS LEFT OPEN BY EXTERNAL FUNCTION *function-name* (SPECIFIC NAME *specific-name*)

Explanation: The function program did not close the specified cursor. Modify the function program so that it closes the cursor.

System Action: The statement cannot be executed.

Programmer Response: Reissue the statement when desired.

SQLSTATE: 24517

-473 A USER DEFINED DATA TYPE CANNOT BE CALLED THE SAME NAME AS A SYSTEM PREDEFINED TYPE (BUILT-IN TYPE)

Explanation: The name of a data type to be created has an unqualified name that is the same as a system-predefined data type or is BOOLEAN. This is not allowed. Adding delimiters does not make the name valid. The following names are restricted:

BLOB	CHAR			
CHARACTER	CLOB	DATE	DBCLOB	
DEC	DECIMAL	DOUBLE	FLOAT	GRAPHIC
INT	INTEGER	NUMERIC	REAL	
ROWID	SMALLINT	TIME	TIMESTAMP	VARCHAR
VARGRAPHIC				

System Action: The statement could not be processed.

Programmer Response: Correct the statement to use another identifier for the name of the new user-defined type.

SQLSTATE: 42918

-475 THE RESULT TYPE *type-1* OF THE SOURCE FUNCTION CANNOT BE CAST TO THE RETURNS TYPE *type-2* OF THE USER-DEFINED FUNCTION *function-name*

Explanation: In order for the CREATE FUNCTION for a sourced user-defined function to be valid, the result type (*type-1*) of the source function must be castable to the RETURNS type (*type-2*) of the function being created. There is no supported cast between these data types. See the *DB2 SQL Reference* for details on casting between data types.

System Action: The statement cannot be executed.

Programmer Response: Change the RETURNS data type or the SOURCE function identified so that the result type of the SOURCE function is castable to the RETURNS data type.

SQLSTATE: 42866

-476 REFERENCE TO FUNCTION *function-name* WAS NAMED WITHOUT A SIGNATURE, BUT THE FUNCTION IS NOT UNIQUE WITHIN ITS SCHEMA

Explanation: References to a function without a signature are permitted, but the named function *function-name* must be unique in its schema and it is not.

Note also that in the ALTER FUNCTION, DROP FUNCTION, COMMENT ON FUNCTION, GRANT and REVOKE statements for EXECUTE on functions, an unqualified reference is qualified with the statement authorization ID, and this is the schema where the problem can be found. In the SOURCE clause of a CREATE FUNCTION statement, the qualification comes from the SQL PATH. In this case, the first schema in the path containing a function with this name had other functions by the same name.

System Action: The statement cannot be executed.

Programmer Response: Correct the reference by one of the following:

- completing the signature
- using the SPECIFIC name of the desired function
- changing the SQL PATH

SQLSTATE: 42725

-478 DROP OR REVOKE ON OBJECT TYPE *type1* CANNOT BE PROCESSED BECAUSE OBJECT *name* OF TYPE *type2* IS DEPENDENT ON IT

Explanation: The requested action cannot be processed because a dependency exists on this *type1*. *type2* is the type of object that has the dependency on the *type1* object involved in the DROP or REVOKE. *type2* can be one of the following:

- FUNCTION
- PROCEDURE
- TABLE
- VIEW
- TRIGGER (for the trigger package)
- CHECK CONSTRAINT (*object_name* contains the table name)
- DEFAULT (*object_name* contains the table name)

DROP If *type1* is *FUNCTION*, the dependencies for DROP might be:

- Another function is sourced on this function.
- A view uses this function.

- A trigger package uses this function.
- A table uses this function in a check constraint or user-defined default.
- A materialized query table definition uses this function.

The dependency might be on one of the generated *cast functions* for a distinct type. If *type1* is *DISTINCT TYPE*, the dependencies for DROP might be:

- A parameter of a function is defined as this distinct type.
- A column of a table is defined as this distinct type.
- A parameter of a stored procedure is defined as this distinct type.

If *type1* is *PROCEDURE*, the dependencies for DROP might be:

- A trigger definition contains a CALL statement with the name of this stored procedure

REVOKE

If *type1* is *FUNCTION*, the dependencies for REVOKE might be:

- A function owned by the revokee is sourced on this function.
- A view owned by the revokee uses this function.
- A trigger package owned by the revokee uses this function.
- A table owned by the revokee uses this function in a check constraint or user-defined default.
- A materialized query table owned by the revokee uses this function in the definition.

If *type1* is *DISTINCT TYPE*, the dependencies for REVOKE might be:

- A parameter of a function owned by the revokee is defined as this distinct type.
- A column of a table owned by the revokee is defined as this distinct type.
- A parameter of a stored procedure owned by the revokee is defined as this distinct type.

If *type1* is *PROCEDURE*, the dependencies for REVOKE might be:

- A trigger definition owned by the revokee contains a CALL statement with the name of this stored procedure.

This SQLCODE may also be issued when SYSADM is being revoked. When SYSADM is revoked the cascading of the REVOKE statement may encounter dependencies that prevent the REVOKE from being successfully processed.

System Action: The statement cannot be executed.

Programmer Response: Remove the dependencies on this object and then reissue the request.

SQLSTATE: 42893

-480 THE PROCEDURE *procedure-name* HAS NOT YET BEEN CALLED

Explanation: The procedure identified in a DESCRIBE PROCEDURE or an ASSOCIATE LOCATORS statement has not yet been called within the application process or the procedure has been called, but an explicit or implicit commit occurred before the statement.

System Action: The statement cannot be executed.

Programmer Response: Correct the statements so that the exact syntax used to specify the procedure name on the CALL statement be the same as that on the ASSOCIATE LOCATOR and/or DESCRIBE PROCEDURE. If an unqualified name is used to CALL the procedure, the 1-part name must also be used on the other statements. If the CALL statement is made with a 3-part name, and the current server is the same as the location in the 3-part name, the ASSOCIATE LOCATOR or DESCRIBE procedure can omit the location. Rerun the statements.

SQLSTATE: 51030

-482 THE PROCEDURE *procedure-name* RETURNED NO LOCATORS

Explanation: The procedure identified in an ASSOCIATE LOCATORS statement returned no result set locators.

System Action: The statement cannot be executed.

Programmer Response: Determine if result set locators are returned from the identified procedure by using the DESCRIBE PROCEDURE statement.

SQLSTATE: 51030

-483 IN CREATE FUNCTION FOR *function-name* STATEMENT, THE NUMBER OF PARAMETERS DOES NOT MATCH THE NUMBER OF PARAMETERS OF THE SOURCE FUNCTION

Explanation: An attempt is being made to CREATE a user-defined function *function-name* which is sourced on another function. One of the following situations has been identified:

- The SOURCE clause uses a function-name (input parameter list) to identify the source function, and the number of types in the list is different from the number of parameters of the function being created.

- The SOURCE clause uses different syntax to identify the source function, and the number of types of that function is different from the number of parameters of the function being created.

System Action: The statement cannot be executed.

Programmer Response: The number of parameters for the SOURCE function and for the function being created must be the same. The identification of the SOURCE function needs to be changed to:

- fix the input parameter list
- correct the function name or function specific name to identify the proper function.

It is also possible that the SQL path needs to be corrected in order for correct function resolution to occur.

SQLSTATE: 42885

-487 *object-type object-name* **ATTEMPTED TO EXECUTE AN SQL STATEMENT WHEN THE DEFINITION OF THE FUNCTION OR PROCEDURE DID NOT SPECIFY THIS ACTION**

Explanation: A user-defined function or stored procedure *object-name* was invoked and attempted to execute SQL statements, but the function or procedure was created with the NO SQL option.

In an environment of nested functions and procedures, the SQL option in effect is the most restrictive one that has been specified in the nested hierarchy of functions and procedures. The SQL data access option in effect does not allow for modifying data.

System Action: The SQL statement cannot be executed.

Programmer Response: Either use an ALTER statement to change the definition of the function or procedure to allow SQL statements, or remove the failing SQL statement from the external function or procedure.

SQLSTATE: 38001

-490 **NUMBER *number* DIRECTLY SPECIFIED IN AN SQL STATEMENT IS OUTSIDE THE RANGE OF ALLOWABLE VALUES IN THIS CONTEXT (*minval*, *maxval*)**

Explanation: A number (*number*) was specified that is not valid in the context in which it was specified. The minimum allowed value in this context is *minval*. The maximum allowed value in this context is *maxval*. *n* must be within the range specified by *minval* and *maxval* ($minval \leq n \leq maxval$).

System Action: The statement was not executed.

Programmer Response: Change the value *n* to a valid value in the statement.

SQLSTATE: 428B7

-491 **CREATE STATEMENT FOR USER-DEFINED FUNCTION *function-name* MUST HAVE A RETURNS CLAUSE AND: THE EXTERNAL CLAUSE WITH OTHER REQUIRED KEYWORDS; THE RETURN STATEMENT AND PARAMETER NAMES; OR THE SOURCE CLAUSE**

Explanation: A required clause is missing in the CREATE for function *function-name*.

- For an EXTERNAL function, specify EXTERNAL and one of the following:
 - LANGUAGE
 - PARAMETER STYLE
- For an SQL FUNCTION, specify a RETURN statement, and a parameter name for each parameter.
- For a user-defined SOURCE FUNCTION, specify the SOURCE class.

System Action: The statement cannot be processed.

Programmer Response: Add the missing clauses or statement, and reissue the failing statement.

SQLSTATE: 42601

-492 **THE CREATE FUNCTION FOR *function-name* HAS A PROBLEM WITH PARAMETER NUMBER *number*. IT MAY INVOLVE A MISMATCH WITH A SOURCE FUNCTION**

Explanation: The parameter in position *number* of function *function-name* is in error. The parameter in position *number* of the source function is not castable to the corresponding parameter of the function being created.

If the parameter of the function being created is a *table parameter* then the corresponding parameter of the source function must also be a *table parameter*. Furthermore, the column numbers for both of the table parameters must be the same.

If the parameter of the function being created is not a table parameter then the corresponding parameter of the source function must also not be a table parameter.

System Action: The statement cannot be executed.

Programmer Response: Possible corrections include:

- Identify a different source function.
- Change the data type of the parameter of the function being created so that the data type of the source function can be cast to this data type.

SQLSTATE: 42879

-495 ESTIMATED PROCESSOR COST OF *estimate-amount1* PROCESSOR SECONDS (*estimate-amount2* SERVICE UNITS) IN COST CATEGORY *cost-category* EXCEEDS A RESOURCE LIMIT ERROR THRESHOLD OF *limit-amount* SERVICE UNITS

Explanation: The prepare of a dynamic INSERT, UPDATE, DELETE, or SELECT SQL statement resulted in a cost estimate that exceeded the error threshold value specified in the resource limit specification table (RLST). This error is also issued if DB2's cost category value was "B", and the default action specified in the RLF_CATEGORY_B column in the RLST is to issue an error.

estimate_amount1

The cost estimate (in processor seconds) if the prepared INSERT, UPDATE, DELETE or SELECT statement were to be executed.

estimate_amount2

The cost estimate (in service units) if the prepared INSERT, UPDATE, DELETE or SELECT statement were to be executed.

cost-category

DB2's cost-category for this SQL statement. The possible values are A or B.

limit-amount

The error threshold (in service units) specified in the RLFASUERR column of the RLST.

System Action: The prepare of the dynamic INSERT, UPDATE, DELETE, or SELECT statement was unsuccessful.

Programmer Response: If this SQLCODE was returned because the cost category value is "B", it might be that the statement is using parameter markers or that some statistics are not available for the referenced tables and columns. Make sure the administrator has run the utility RUNSTATS on the referenced tables. It might also be that UDFs will be invoked when the statement is executed, or for INSERT, UPDATE, or DELETE statements that triggers are defined on the changed table. Check the DSN_STATEMNT_TABLE or the IFCID 22 record for this statement to find the reasons this SQL statement has been put in cost category "B". If the program cannot be changed, or if statistics cannot be obtained, ask the administrator to change the value in the RLF_CATEGORY_B column in the RLST to "Y" which allows the statement to execute or "W" which returns a warning instead of an error.

User Response: If the warning is caused by an SQL statement that is consuming too much processor resource, attempt to rewrite the statement to perform more efficiently. Another option is to ask the administrator to increase the error threshold value in the RLST.

SQLSTATE: 57051

-496 THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE IT REFERENCES A RESULT SET THAT WAS NOT CREATED BY THE CURRENT SERVER

Explanation: The SQL statement cannot be executed because the current server is different from the server that called a stored procedure. The SQL statement can be any of the following:

- ALLOCATE CURSOR
- DESCRIBE CURSOR
- FETCH (using an allocated cursor)
- CLOSE (using an allocated cursor)

System Action: The statement cannot be executed.

Programmer Response: Connect to the server that called the stored procedure which created the result set before running the SQL statement that failed.

SQLSTATE: 51033

-497 THE MAXIMUM LIMIT OF INTERNAL IDENTIFIERS HAS BEEN EXCEEDED FOR DATABASE *database-name*

Explanation: The SQL statement cannot be executed because an internal identifier limit has been exceeded for the database. The cause of this error is due to one of the following:

1. On a CREATE DATABASE statement, the limit of 65279 DBIDs has been exceeded.
2. For all other statements, the limit of 32767 OBIDs has been exceeded for that database.

System Action: The SQL statement cannot be executed.

Programmer Response: Take the appropriate action as described in the following cases:

1. In the case of a DBID limit being exceeded, DROP all unused databases and issue a COMMIT.
2. In the case of an OBID limit being exceeded, DROP all unused objects in the database and issue a COMMIT, specify a different database or run the MODIFY utility to reclaim unused OBIDs.

SQLSTATE: 54041

-499 CURSOR *cursor-name* HAS ALREADY BEEN ASSIGNED TO THIS OR ANOTHER RESULT SET FROM PROCEDURE *procedure-name*.

Explanation: An attempt was made to assign a cursor to a result set using the SQL statement ALLOCATE CURSOR and one of the following applies:

- The result set locator variable specified in the ALLOCATE CURSOR statement has been previously assigned to cursor *cursor-name*.

- Cursor *cursor-name* specified in the ALLOCATE CURSOR statement has been previously assigned to a result set from stored procedure *procedure-name*.

System Action: The statement cannot be executed.

Programmer Response: Determine if the target result set named in the ALLOCATE CURSOR statement has been previously assigned to a cursor.

If the result set has been previously assigned to cursor *cursor-name*, then either choose another target result set or call stored procedure *procedure-name* again and reissue the ASSOCIATE LOCATOR and ALLOCATE CURSOR statements.

If the result set has not been previously assigned to a cursor, the cursor *cursor-name* specified in the ALLOCATE CURSOR statement has been previously assigned to some result set from stored procedure *procedure-name*. You can not assign cursor *cursor-name* to another result set, so you must specify a different cursor name in the ALLOCATE CURSOR statement.

Correct the statements so that the exact syntax used to specify the procedure name on the CALL statement be the same as that on the ASSOCIATE LOCATOR and/or DESCRIBE PROCEDURE. If an unqualified name is used to CALL the procedure, the 1-part name must also be used on the other statements. If the CALL statement is made with a 3-part name, and the current server is the same as the location in the 3-part name, the ASSOCIATE LOCATOR or DESCRIBE procedure can omit the location.

SQLSTATE: 24516

-500 THE IDENTIFIED CURSOR WAS CLOSED WHEN THE CONNECTION WAS DESTROYED

Explanation: The FETCH, UPDATE, DELETE, or CLOSE statement identifies a closed cursor that was defined with the WITH HOLD option. The cursor was closed when the connection on which it was dependent was destroyed during a commit operation. The connection was destroyed because the application process placed it in the released state, or the application plan was bound with the DISCONNECT(AUTOMATIC) option.

System Action: The statement cannot be executed.

Programmer Response: The correction depends on the desired state of both the cursor and the connection, as follows:

- If you want the cursor closed, change the application program so that the cursor is not referenced in the closed state.
- If you want the cursor open and the connection was placed in the released state by the application

program, change the program so that the connection is not placed in the released state until the cursor is explicitly closed.

- If you want the cursor open and the connection was placed in the released state as a result of the DISCONNECT(AUTOMATIC) option, rebind the plan using DISCONNECT(CONDITIONAL).

Correct the error in the application, rebind the plan, and resubmit the job.

SQLSTATE: 24501

-501 THE CURSOR IDENTIFIED IN A FETCH OR CLOSE STATEMENT IS NOT OPEN

Explanation: The application program attempted to either:

1. FETCH using a cursor, or
2. CLOSE a cursor

at a time when the specified cursor was not open.

System Action: The statement cannot be executed.

Programmer Response: Check for a previous SQL return code that may have closed the cursor. Commit and rollback operations close cursors. SQLCODES -404, -652, -679, -802, -901, -904, -909, -910, -911, -913, and -952 may force the cursor to close. After the cursor is closed, any fetches or close cursor statements will receive this SQLCODE -501.

If no previous SQL return codes have been issued, correct the logic of the application program to ensure that the cursor is open at the time the FETCH or CLOSE statement is executed.

SQLSTATE: 24501

-502 THE CURSOR IDENTIFIED IN AN OPEN STATEMENT IS ALREADY OPEN

Explanation: The application program attempted to execute an OPEN statement for a cursor that was already open.

System Action: The statement cannot be executed. The cursor was unchanged (that is, it was not 'reopened').

Programmer Response: Correct the logic of the application program to ensure that it does not attempt to execute an OPEN statement for a cursor that is already open.

SQLSTATE: 24502

-503 A COLUMN CANNOT BE UPDATED BECAUSE IT IS NOT IDENTIFIED IN THE UPDATE CLAUSE OF THE SELECT STATEMENT OF THE CURSOR

Explanation: The application program attempted to update (using a cursor) a value in a column of the object table that was not identified in the FOR UPDATE clause in the cursor declaration.

Any column that is to be updated must be identified in the FOR UPDATE clause of the cursor declaration.

System Action: The statement cannot be executed. No data was updated in the object table.

Programmer Response: Correct the application program. If the column is to be updated, its name must be added to the FOR UPDATE clause of the cursor declaration.

SQLSTATE: 42912

-504 THE CURSOR NAME *cursor-name* IS NOT DEFINED

Explanation: Cursor *cursor-name* was referenced in an SQL statement, and one of the following is true:

- Cursor *cursor-name* was not declared (using the DECLARE CURSOR statement) or allocated (using the ALLOCATE CURSOR statement) in the application program before it was referenced.
- Cursor *cursor-name* was referenced in a positioned UPDATE or DELETE statement which is not a supported operation for an allocated cursor.
- Cursor *cursor-name* was allocated, but a CLOSE cursor statement naming *cursor-name* was issued and deallocated the cursor before this cursor reference.
- Cursor *cursor-name* was allocated, but a ROLLBACK operation occurred and deallocated the cursor before this cursor reference.
- Cursor *cursor-name* was allocated, but its associated cursor declared in a stored procedure was not declared WITH HOLD, and a COMMIT operation occurred and deallocated the cursor before this cursor reference. The COMMIT operation can be either explicit (the COMMIT statement) or implicit (that is, a stored procedure defined as COMMIT_ON_RETURN = 'Y' was called before this cursor reference).
- Cursor *cursor-name* was allocated, but its associated stored procedure was called again since the cursor was allocated, new result sets were returned, and cursor *cursor-name* was deallocated.

System Action: The statement cannot be executed.

Programmer Response: Check the application program for completeness and for a possible spelling error in the cursor declaration or allocation. The declaration for or allocation of a cursor must appear in

an application program before SQL statements that reference the cursor.

If the *cursor-name* was <UNKNOWN>, then the cursor was not successfully declared or allocated. This can occur if SQL(DB2) was used, and a warning message was issued during precompilation. Check the precompile output for warning messages on the DECLARE CURSOR or ALLOCATE CURSOR statement, and correct the statement.

For an allocated cursor, if an implicit or explicit COMMIT, ROLLBACK, or CLOSE occurred since the cursor was successfully allocated, modify the application program logic to do one of the following:

- After the COMMIT, ROLLBACK, or CLOSE operation, call the associated stored procedure again, and reissue the ASSOCIATE LOCATORS and ALLOCATE CURSOR statements.
- For COMMIT, declare the associated cursor in the stored procedure WITH HOLD so the COMMIT operation will not deallocate the cursor.

For an allocated cursor, if the associated stored procedure was called again and new result sets were returned since the cursor was allocated, reissue the ASSOCIATE LOCATORS and ALLOCATE CURSOR statements.

SQLSTATE: 34000

-507 THE CURSOR IDENTIFIED IN THE UPDATE OR DELETE STATEMENT IS NOT OPEN

Explanation: The application program attempted to execute an UPDATE or DELETE WHERE CURRENT OF cursor statement at a time when the specified cursor was not open.

System Action: The statement cannot be executed. No update or delete was performed.

Programmer Response: Check for a previous SQL return code that might have closed the cursor. SQLCODES -404, -652, -679,-802, -901, -904, -909, -910, -911, -913, and -952 may force the cursor to close. After the cursor is closed, any fetches or close cursor statements receive SQLCODE -501. Any updates or deletes receive this SQLCODE -507. Correct the logic of the application program to ensure that the specified cursor is open at the time the UPDATE or DELETE statement is executed.

SQLSTATE: 24501

-508 THE CURSOR IDENTIFIED IN THE UPDATE OR DELETE STATEMENT IS NOT POSITIONED ON A ROW OR ROWSET THAT CAN BE UPDATED OR DELETED

Explanation: The application program attempted to execute an UPDATE or DELETE WHERE CURRENT OF cursor statement at a time when the specified cursor was not positioned on a row of the object table. The cursor must be positioned on the row that is to be updated or deleted.

This can occur if the cursor is no longer positioned on the row because another cursor in the same application program delete the row or updates an index column. This includes deletes and index column updates that are performed as a result of rolling back to a savepoint.

This can also occur with a sensitive dynamic cursor when the FOR ROW *n* OF ROWSET clause is specified and the specified row of the current rowset has been updated or deleted.

System Action: The statement cannot be executed. No data was updated or deleted.

Programmer Response: Correct the logic of the application program to ensure that the cursor is correctly positioned on the intended row of the object table before the UPDATE or DELETE statement is executed. Note that the cursor is not positioned on a row if FETCH returned an SQLCODE = 100.

SQLSTATE: 24504

-509 THE TABLE IDENTIFIED IN THE UPDATE OR DELETE STATEMENT IS NOT THE SAME TABLE DESIGNATED BY THE CURSOR

Explanation: The application program attempted to execute an UPDATE or DELETE WHERE CURRENT OF cursor statement where the table named in that statement did not match the name of the table specified in the declaration for that cursor.

System Action: The statement cannot be executed. The update or delete was not performed.

Programmer Response: Correct the application program to ensure that the table identified in the UPDATE or DELETE statement is the same table identified in the declaration for the cursor.

SQLSTATE: 42827

-510 THE TABLE DESIGNATED BY THE CURSOR OF THE UPDATE OR DELETE STATEMENT CANNOT BE MODIFIED

Explanation: The application program attempted to execute an UPDATE or DELETE WHERE CURRENT OF cursor statement against a table or view that cannot be updated or deleted. This can occur for a delete from

a read-only view or for an update in which the cursor was not defined with the FOR UPDATE clause.

This error code is also returned when the table exists at a remote location and DB2 has employed block fetching because you explicitly declared the cursor FOR FETCH ONLY, or because the application is bound CURRENTDATA(NO) and the cursor is ambiguous.

This error code is also returned if DB2 has employed parallelism to execute the SELECT statement associated with the cursor named in a DELETE WHERE CURRENT OF cursor statement, or if a DELETE WHERE CURRENT OF is issued against a row which DB2 cannot guarantee to have not been modified by another application since the time the cursor was positioned upon it (in accordance with ISO(CS)) semantics for an ambiguous cursor in an application bound CURRENTDATA(NO)).

System Action: The statement cannot be processed. No data was updated or deleted in the object table.

Programmer Response: The requested UPDATE or DELETE cannot be performed. Refer to Chapter 5 of *DB2 SQL Reference* for information about restrictions on using UPDATE and DELETE operations against views.

For a remote table, modify the DECLARE CURSOR and then rebind the PLAN.

For a cursor that uses parallelism, disable parallelism for the query by using the DEGREE(1) BIND option for static SQL or by setting the CURRENT DEGREE special register to '1' for dynamic SQL.

For an ambiguous cursor in an application bound CURRENTDATA(NO), either make the cursor unambiguous (declare it FOR UPDATE OF), or rebind the application CURRENTDATA(YES).

SQLSTATE: 42828

-511 THE FOR UPDATE CLAUSE CANNOT BE SPECIFIED BECAUSE THE TABLE DESIGNATED BY THE CURSOR CANNOT BE MODIFIED

Explanation: The result table of the SELECT statement cannot be updated. This can occur if the SELECT specifies more than one table or view in the FROM clause, if the SELECT list contains a built-in function or DISTINCT, or if the statement contains an ORDER BY or GROUP BY or HAVING clause. This can also occur if a view is specified in the FROM clause and the view cannot be updated.

System Action: The statement cannot be executed. The specified cursor remains undefined in the application program.

Programmer Response: Updates cannot be performed on the result table as it is specified. Refer to Chapter 5 of *DB2 SQL Reference* for information about restrictions on the updating of views.

SQLSTATE: 42829

-512 STATEMENT REFERENCE TO REMOTE OBJECT IS INVALID

Explanation: One of the following conditions exists:

- The statement refers to multiple locations.
- A statement with a remote reference is being EXPLAINED either by a dynamic EXPLAIN statement or the EXPLAIN(YES) option.
- An alias is used incorrectly.
- A three-part name is implicitly or explicitly used in a statement that is not supported by the DB2 private protocols.
- A three-part name is implicitly or explicitly used in a triggered statement.
- A PREPARE statement contains an ATTRIBUTES clause. This is not supported by the BD2 private protocols.

System Action: The statement cannot be executed.

Programmer Response: If the object cannot be meaningfully eliminated from the statement, see your Database Administrator for other ways to obtain the data required. Refer to Chapter 3 of *DB2 SQL Reference* for more information about using remote objects.

If the remote object reference is in a triggered SQL statement, you can instead invoke a user-defined function or a stored procedure from the trigger and access the remote object from the function or stored procedure.

SQLSTATE: 56023

-513 THE ALIAS *alias-name* MUST NOT BE DEFINED ON ANOTHER LOCAL OR REMOTE ALIAS

Explanation: The object indicated by 'alias-name' is a local or remote alias. An alias is not allowed to be defined on a local alias, and it should not be defined on a remote alias.

System Action: The statement cannot be executed.

Programmer Response: Modify the SQL statement to ensure that all object references are to base tables or views.

SQLSTATE: 42924

-514 THE CURSOR *cursor-name* IS NOT IN A PREPARED STATE

Explanation: The application program has tried to use a cursor, 'cursor-name,' that is not in a prepared state. The cursor is associated with a statement that either (1) has never been prepared, or (2) has been invalidated by a commit or rollback operation.

System Action: The statement cannot be executed.

Programmer Response: For case (1), ensure that you prepare the statement that is named in the DECLARE CURSOR statement for 'cursor-name' before you try to open the cursor. For case (2), do one of the following:

- Use the WITH HOLD option of DECLARE CURSOR.
- Do not execute a commit or rollback operation until you are finished using the cursor.
- Prepare the statement again after the commit or rollback.

SQLSTATE: 26501

-516 THE DESCRIBE FOR STATIC STATEMENT DOES NOT IDENTIFY A PREPARED STATEMENT

Explanation: An attempt was made to execute a DESCRIBE FOR STATIC for a statement that had not been successfully prepared beforehand. This error can occur when the DESCRIBE originates on an application requester that supports extended dynamic SQL. Because the target statement is static on the DB2 for MVS/ESA subsystem, the DESCRIBE statement fails.

System Action: The statement cannot be executed.

Programmer Response: Correct the logic of the application program to ensure that a statement is properly prepared before a DESCRIBE FOR STATIC of the statement is attempted. If the DESCRIBE FOR STATIC is a distributed request that originated on a system that supports extended dynamic SQL, contact your system administrator about changing the DB2 subsystem parameter DESCSTAT to YES to tolerate these DESCRIBE FOR STATIC requests against static SQL.

SQLSTATE: 26501

-517 CURSOR *cursor-name* CANNOT BE USED BECAUSE ITS STATEMENT NAME DOES NOT IDENTIFY A PREPARED SELECT STATEMENT

Explanation: The cursor 'cursor-name' could not be used as specified because the prepared statement named in the declaration for the cursor was not a SELECT statement.

System Action: The statement cannot be executed.

Programmer Response: Verify that the statement-name is specified correctly in the PREPARE statement and the DECLARE CURSOR statement for cursor 'cursor-name'. Alternatively, correct the application program logic to ensure that only prepared SELECT statements are used in association with cursor declarations.

SQLSTATE: 07005

-518 THE EXECUTE STATEMENT DOES NOT IDENTIFY A VALID PREPARED STATEMENT

Explanation: One of the following conditions exists:

- The statement named in the EXECUTE statement has not been prepared.
- The statement named in the EXECUTE statement identifies a SELECT, VALUE INTO, or statement.
- The statement named in the EXECUTE IMMEDIATE statement identifies a SELECT, VALUE INTO, or statement.

System Action: The statement cannot be executed.

Programmer Response: Ensure that you prepare the statement prior to EXECUTE. Also, ensure that the statement you prepare is not a SELECT or VALUES INTO statement.

SQLSTATE: 07003

-519 THE PREPARE STATEMENT IDENTIFIES THE SELECT STATEMENT OF THE OPENED CURSOR *cursor-name*

Explanation: The application program has attempted to PREPARE (actually, re-PREPARE) the SELECT statement for the specified cursor at a time when that cursor was already open.

System Action: The statement cannot be executed. The cursor was not affected.

Programmer Response: Correct the logic of the application program so that it does not attempt to re-PREPARE the SELECT statement for a cursor when that cursor is open.

SQLSTATE: 24506

-525 THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE IT WAS IN ERROR AT BIND TIME FOR SECTION = *sectno* PACKAGE = *pkgname* CONSISTENCY TOKEN = *contoken*

Explanation: One of the following:

- The statement was in error when the package was bound, but the error was ignored then because the option SQLERROR (CONTINUE) was used. Since the statement contains an error, it cannot be executed.
- The statement might not be an executable statement at this location, or might only be executable by a DB2 application requester (for example, DECLARE TABLE in an application running on OS/2 causes this message).

The variables are:

sectno Section number

pkgname
locid.collid.pkgid

contoken
Consistency token in hexadecimal

System Action: The statement cannot be executed.

Programmer Response: If the SQL statement is not supposed to execute at the indicated location, then correct the program so that the statement in error does not execute at that location. Precompile, compile, and bind replace the package. If the SQL statement is supposed to execute at the indicated location, correct the problem found when it was bound and bind the package over using BIND with ACTION(REPLACE). If multiple versions of the package have been bound, issue the following SELECT statement to determine which version has the error: SELECT VERSION FROM locid.SYSIBM.SYSPACKAGE WHERE LOCATION = ' ' AND COLLID = 'collid' AND NAME = 'pkgid' AND HEX(CONTOKEN) = 'contoken'

Where:

locid Location name

collid Collection id

pkgid Program name

SQLSTATE: 51015

-526 THE REQUESTED OPERATION OR USAGE DOES NOT APPLY TO *table-type* TEMPORARY TABLE *table-name*

Explanation: DB2 assumes that the SQL statement being executed refers to a *created* or *declared* temporary table named *table-name*, and the requested operation or usage in the statement is not allowed on the temporary table.

table-type
CREATED or DECLARED

CREATED is for a temporary table defined by the CREATE GLOBAL TEMPORARY TABLE statement.

DECLARED is for a temporary table defined by the DECLARE GLOBAL TEMPORARY TABLE statement.

table-name
Qualified name of the temporary table.

System Action: The statement cannot be processed.

Programmer Response: Modify the SQL statement to ensure that the object references are not to the indicated type of temporary table, or if *table-type* is DECLARED and you intended *table-name* to refer to an existing persistent base table, you must perform one of the following actions:

- Recreate the persistent base table *table-name* with a different qualifier
- In the same application process, issue a DROP TABLE for *table name* followed by a COMMIT to drop the declared temporary table and afterwards be able to reference the persistent base table with the same *table-name* in the same application process
- Remove the DECLARE GLOBAL TEMPORARY TABLE statement from the application process to use the persistent base table with the same *table-name*

SQLSTATE: 42995

-530 THE INSERT OR UPDATE VALUE OF FOREIGN KEY *constraint-name* IS INVALID

Explanation: An UPDATE or INSERT operation attempted to place a value in a foreign key of the object table; however, this value was not equal to some value of the parent key of the parent table.

When a row is inserted into a dependent table, the insert value of a foreign key must be equal to the value of the parent key of some row of the parent table in the associated relationship.

When the value of the foreign key is updated, the update value of a foreign key must be equal to the value of the parent key of some row of the parent table of the associated relationship.

System Action: The UPDATE or INSERT statement cannot be executed. The object table is unchanged.

Programmer Response: Examine the insert or update value of the foreign key first, and then compare it with each of the parent key values of the parent table to determine the cause of the problem.

SQLSTATE: 23503

-531 PARENT KEY IN A PARENT ROW CANNOT BE UPDATED BECAUSE IT HAS ONE OR MORE DEPENDENT ROWS IN RELATIONSHIP *constraint-name*

Explanation: For plans and packages bound beginning with Version 5 or dynamic SQL, a multi-row update of a parent key attempted to remove a parent key value on which a foreign key was dependent.

For plans and packages bound prior to Version 5 an UPDATE operation attempted to update a primary key in the specified row of the object table; however, the primary key in the specified row had dependent rows associated with it. The value of a primary key in a parent row cannot be updated if the parent row has any dependent rows.

System Action: The UPDATE statement cannot be executed. The object table is unchanged.

Programmer Response: Examine the parent key of the object table and the foreign key of the dependent table to determine if the value of the specified row of the parent key should be changed. If this does not expose the problem, examine the contents of the object table and the dependent table to determine the cause of the problem.

SQLSTATE: 23504

-532 THE RELATIONSHIP *constraint-name* RESTRICTS THE DELETION OF ROW WITH RID X'*rid-number*'

Explanation: A DELETE operation attempted to delete a specified parent row in the object table and all related descendent rows in the descendent tables. However, a delete rule of RESTRICT or NO ACTION was specified for one or more descendent tables.

A row of the table cannot be deleted because it has a dependent in a relationship with a delete rule of RESTRICT or NO ACTION or the deletion cascades to a row which is a dependent in a relationship with a delete rule of RESTRICT or NO ACTION.

If the statement that failed is an ALTER TABLE with ALTER PART ROTATE FIRST TO LAST, then there is a referential constraint that is defined with DELETE RESTRICT on the table, and the data in the partition that is to be reused cannot be deleted because of the referential constraint.

System Action: The DELETE statement cannot be executed. The contents of the object table are unchanged.

Programmer Response: Examine the delete rule for all descendent tables to determine the cause of the problem. The specific tables involved can be determined from the relationship '*constraint-name*'. The specific descendent row is known by RID X'*rid-number*'.

SQLSTATE: 23504

-533 INVALID MULTIPLE-ROW INSERT

Explanation: An INSERT operation with a subselect attempted to insert multiple rows into a self-referencing table.

The subselect of the INSERT operation should return no more than one row of data.

System Action: The INSERT statement cannot be executed. The contents of the object table are unchanged.

Programmer Response: Examine the search condition of the subselect to make sure that no more than one row of data is selected.

SQLSTATE: 21501

-534 THE PRIMARY KEY CANNOT BE UPDATED BECAUSE OF MULTIPLE-ROW UPDATE

Explanation: An UPDATE operation attempted to update a primary key on multiple rows of the object table.

An UPDATE statement updating the primary key cannot be used to update more than one row of the object table.

Note: This SQLCODE will only be issued for plans and packages bound prior to Version 5. SQLCODE -534 will not be issued for dynamic SQL or plans and packages bound with Version 5 or later releases.

System Action: The UPDATE statement cannot be executed. The contents of the object table are unchanged.

Programmer Response: Examine the search condition of the UPDATE statement to make sure that no more than one row of the object table is selected to be updated.

SQLSTATE: 21502

-536 THE DELETE STATEMENT IS INVALID BECAUSE TABLE *table-name* CAN BE AFFECTED BY THE OPERATION

Explanation: A DELETE operation with the indicated table referenced in a subquery was attempted.

If 'T' is the object table of the DELETE, the indicated table is one of the following:

- A dependent of 'T' in a relationship with a delete rule of CASCADE or SET NULL
- A dependent of another table in a relationship with a delete rule of CASCADE or SET NULL in which deletions from 'T' can cascade to that table.

System Action: The DELETE statement cannot be processed. The contents of the object table are unchanged.

Programmer Response: Do not attempt to reference a table in a subquery of a DELETE statement when the table can be affected by the DELETE statement.

SQLSTATE: 42914

-537 THE PRIMARY KEY, FOREIGN KEY, UNIQUE, OR PARTITIONING CLAUSE IDENTIFIES COLUMN *column-name* MORE THAN ONCE

Explanation: The primary key clause, foreign key clause, uniqueness clause and partitioning clause each contain a list of one or more column names. The statement violates the rule that no column name can appear more than once in any such list.

Programmer Response: Correct the statement to specify unique names for each column.

SQLSTATE: 42709

-538 FOREIGN KEY *name* DOES NOT CONFORM TO THE DESCRIPTION OF A PARENT KEY OF TABLE *table-name*

Explanation: The definition of the indicated foreign key does not conform to the description of parent key of the indicated table due to one of the following reasons:

- The referenced parent key has not been defined as a primary key or a unique key.
- The keys do not have the same number of columns.
- The description of the keys are not identical. The requirement for identical descriptions includes data type, length attribute, and field procedure.

name is the constraint-name specified in the foreign key clause or, if a constraint-name was not specified, the first column-name specified in the clause.

System Action: The statement cannot be processed.

Programmer Response: Correct the statement so that the description of the foreign key references a primary key or unique key, or so that the description of the foreign key conforms to that of a parent key of the indicated table.

SQLSTATE: 42830

-539 TABLE *table-name* DOES NOT HAVE A PRIMARY KEY

Explanation: DB2 cannot perform the CREATE or ALTER TABLE statement because the indicated table does not have a primary key. Thus, the primary key cannot be dropped, or the table cannot be defined as a parent in a referential constraint.

System Action: The statement cannot be processed.

Programmer Response: Correct the statement to reference a table with a primary key, or define a primary key with ALTER TABLE ADD PRIMARY KEY before referencing the table in a FOREIGN KEY clause.

SQLSTATE: 42888

-540 THE DEFINITION OF TABLE *table-name* IS INCOMPLETE BECAUSE IT LACKS A PRIMARY INDEX OR A REQUIRED UNIQUE INDEX

Explanation: The table named was defined with a PRIMARY KEY clause, a UNIQUE clause, or with a ROWID column with the GENERATED BY DEFAULT attribute. Its definition is incomplete, and it cannot be used until a unique index is defined for

- the primary key (the primary index)
- a ROWID column

- for each set of columns in any UNIQUE clause (the required unique indexes).

An attempt was made to use the table in a FOREIGN KEY clause or in an SQL manipulative statement.

System Action: The statement cannot be executed.

Programmer Response: Define a primary index or a required unique index on the table before referencing it.

SQLSTATE: 57001

-542 *column-name* **CANNOT BE A COLUMN OF A PRIMARY KEY, A UNIQUE CONSTRAINT, OR A PARENT KEY BECAUSE IT CAN CONTAIN NULL VALUES**

Explanation: The code is used to report that a column identified in a PRIMARY KEY, a UNIQUE constraint clause, or a parent key (via a REFERENCES clause) is defined to allow null values.

System Action: The statement cannot be executed.

Programmer Response: In the case of a column identified in a PRIMARY KEY or a UNIQUE constraint clause, correct the statement and rerun it.

In the case of a column identified in a REFERENCES clause, drop the parent table then recreate it with referenced columns defined as NOT NULL. Afterwards, rerun the statement.

SQLSTATE: 42831

-543 **A ROW IN A PARENT TABLE CANNOT BE DELETED BECAUSE THE CHECK CONSTRAINT *check-constraint* RESTRICTS THE DELETION**

Explanation: The delete operation cannot be executed because the target table is a parent table and is connected with a referential constraint to a dependent table with a delete rule of SET NULL. However, a check constraint defined on the dependent table restricts the column from containing a null value.

System Action: The DELETE statement was not executed. The contents of the tables are unchanged.

Programmer Response: Examine the foreign key and its delete rule in the dependent table and the conflicting check constraint. Change either the delete rule or the check constraint so that they do not conflict.

SQLSTATE: 23511

-544 **THE CHECK CONSTRAINT SPECIFIED IN THE ALTER TABLE STATEMENT CANNOT BE ADDED BECAUSE AN EXISTING ROW VIOLATES THE CHECK CONSTRAINT**

Explanation: An existing row violates the check constraint specified in the ALTER TABLE statement.

System Action: The statement cannot be executed. The check constraint definition is not added to the table. The table definition is unchanged.

Programmer Response: Examine the check constraint definition that was specified in the ALTER TABLE statement and the data in the table to determine why the ALTER TABLE statement was rejected.

You can determine which rows violated the check constraint by using the SELECT statement, negating the check constraint in the WHERE clause. For example:

```
SELECT * FROM table WHERE (NOT (check-condition));
```

SQLSTATE: 23512

-545 **THE REQUESTED OPERATION IS NOT ALLOWED BECAUSE A ROW DOES NOT SATISFY THE CHECK CONSTRAINT *check-constraint***

Explanation: Table check constraint violations occurred on an INSERT or UPDATE statement. The resulting row violated the check constraint definition on the table.

System Action: The INSERT or UPDATE statement cannot be executed. The contents of the table are unchanged.

Programmer Response: Examine the data and the check constraint definition in the SYSIBM.SYSCHECKS catalog table to determine why the INSERT or UPDATE statement was rejected. The data must be changed to satisfy the check constraint.

SQLSTATE: 23513

-546 **THE CHECK CONSTRAINT *constraint-name* IS INVALID**

Explanation: A check constraint in the CREATE TABLE or ALTER TABLE statement is invalid for one or more of the following reasons:

- The constraint definition refers to a column that has a field procedure.
- The constraint definition refers to a column with a data type that is lower in the hierarchy of numeric data types than the data type of any other operand. The hierarchy is as follows:

```
small integer < large integer < decimal  
< single precision float < double precision float
```

- The constraint definition refers to a column with a numeric data type that is not the same numeric data type as that of the other column operands.
- The constraint definition refers to a column with a length that is shorter than the other operands when the column and other operands are not character string data types.
- The constraint definition refers to a built-in or user-defined function.
- The constraint definition uses a cast function that requires conversion of the data. The only functions that are allowed in a check constraint are cast functions that do not require conversion of the data.

System Action: The statement is not executed.

For ALTER TABLE, the check constraint is not added to the object table. The definition of the table is unchanged.

For CREATE TABLE, the table is not created.

Programmer Response: Correct the check constraint definition and execute the statement again.

SQLSTATE: 42621

-548 A CHECK CONSTRAINT THAT IS DEFINED WITH *column-name* IS INVALID

Explanation: A check constraint in the CREATE TABLE or ALTER TABLE statement is invalid for one or more of the following reasons:

- The constraint definition refers to a column that has a field procedure.
- The constraint definition refers to a column with a data type that is lower in the hierarchy of numeric data types than the data type of any other operand. The hierarchy is as follows:
small integer < large integer < decimal < single precision float < double precision float
- The constraint definition refers to a column with a numeric data type that is not the same numeric data type as that of the other column operands.
- The constraint definition refers to a column with a length that is shorter than the other operands when the column and other operands are not character string data types.
- The constraint definition refers to a ROWID column.
- The constraint definition refers to a LOB column.

System Action: The statement is not executed.

For ALTER TABLE, the check constraint is not added to the object table. The definition of the table is unchanged.

For CREATE TABLE, the table is not created.

Programmer Response: Correct the check constraint definition and execute the statement again.

SQLSTATE: 42621

-549 THE *statement* STATEMENT IS NOT ALLOWED FOR *object_type1* *object_name* BECAUSE THE BIND OPTION DYNAMICRULES(RUN) IS NOT IN EFFECT FOR *object_type2*

Explanation: A program attempted to issue the indicated SQL statement that is one of several SQL statements that cannot be issued from a plan or package for which the option DYNAMICRULES(RUN) is not in effect. Those SQL statements are:

- Dynamic GRANT statement
- Dynamic REVOKE statement
- Dynamic ALTER statement
- Dynamic CREATE statement
- Dynamic DROP statement

The indicated SQL statement is bound to one of the following:

- The named plan or package that was not bound with the option DYNAMICRULES(RUN)
- The named package that was not bound with the DYNAMICRULES option, but is appended to a plan that was not bound with DYNAMICRULES(RUN)

statement

The SQL statement in error

object_type1

PACKAGE or DBRM

object_name

If *object_type1* is PACKAGE, *object_name* is the name of the package in the format 'location-id.collection-id.package-id'.

If *object_type1* is DBRM, *object_name* is the name of the DBRM in the format 'plan-name DBRM-name'.

object_type2

PLAN or PACKAGE

If *object_type1* is PACKAGE, *object_type2* can be either PACKAGE or PLAN (whichever is bound with a DYNAMICRULES value other than RUN).

If *object_type1* is DBRM, *object_type2* is PLAN.

System Action: The SQL statement cannot be executed.

Programmer Response: Do one of the following to correct the error:

- If the SQL statement is embedded, remove it, precompile and compile the application program again, and reissue the BIND command with the desired DYNAMICRULES option.

- If appropriate, use the SQL statement with a package or plan that is bound with DYNAMICRULES(RUN).
- Issue the REBIND command with the DYNAMICRULES(RUN) option for the plan or package to which the SQL statement is bound

Refer to the BIND PACKAGE(DSN), BIND PLAN(DSN), REBIND PACKAGE(DSN), or REBIND PLAN(DSN) statement in *DB2 Command Reference* for the description of the DYNAMICRULES option and the expected results. Determine if either the SQL statement should be removed from the program or the plan or package should be rebound with the DYNAMICRULES(RUN) option.

SQLSTATE: 42509

-551 *auth-id* **DOES NOT HAVE THE PRIVILEGE TO PERFORM OPERATION operation ON OBJECT object-name**

Explanation: Authorization ID *auth-id* attempted to perform *operation* on object *object-name* without having been granted the proper authority to do so. This error might also occur if the object is a read-only view (for INSERT, DELETE, or UPDATE), or if *auth-id* is trying to create a table or view with an authorization ID other than its own.

You can create a table from an *auth-id* other than your own only if your authorization ID is SYSADM, DBADM, or DBCTRL. You can create a view from an *auth-id* other than your own only if your authorization ID is SYSADM.

When *operation* is 'GRANT ***', the keyword ALL was used in the GRANT statement, but the grantor *auth-id* did not possess any privilege to grant.

If this error occurs while DB2 is creating or altering a table involving referential constraints, this code reports that the user does not have the necessary ALTER privilege to perform a FOREIGN KEY, DROP FOREIGN KEY, DROP PRIMARY KEY, or DROP UNIQUE operation. The *object-name* identifies the object table of the CREATE or ALTER TABLE statement, not the table for which the user lacks the ALTER privilege.

If this error occurs for a distributed SQL request, then:

1. If authorization ID translation is in effect for either the requesting DB2 site or the serving (responding) DB2 site, then *auth-id* is the translated authorization ID. Refer to Part 3 (Volume 1) of *DB2 Administration Guide* for information on authorization ID translation.
2. If an alias name was used in the SQL statement, then *object-name* is the resolved remote table or view name.

If the operation is a DROP PACKAGE, the object name consists of the collection ID, the package name and the consistency token. The consistency token uniquely identifies which version of the package the user does not have authorization to drop.

If this error occurs during invocation of a routine, then authorization ID *auth-id* does not have the EXECUTE privilege on any candidate routine in the SQL path. *object-name* is the name of a candidate routine in the SQL path.

Note: Beginning with Version 5, SQLCODE -551 will be returned instead of SQLCODE -204 for the runtime error where an object does not exist and the CURRENT RULES special register is set to 'STD'.

System Action: The statement cannot be executed.

Installation Action: Check for an attempted authorization violation.

Programmer Response: Ensure that *auth-id* was granted the authority to perform the desired operation, the *object-name* exists, and *auth-id* is not trying to create a table with a different authorization ID.

SQLSTATE: 42501

-552 *auth-id* **DOES NOT HAVE THE PRIVILEGE TO PERFORM OPERATION operation**

Explanation: Authorization ID 'auth-id' has attempted to perform the specified 'operation' without having been granted the authority to do so.

System Action: The statement cannot be executed.

Installation Action: Check for an attempted authorization violation.

Programmer Response: Ensure that the authorization ID has been granted the authority necessary to perform the desired operation.

SQLSTATE: 42502

-553 *auth-id* **SPECIFIED IS NOT ONE OF THE VALID AUTHORIZATION IDS**

Explanation: The authorization ID specified as the value of the 'authorization-id' or host variable in the SQL SET CURRENT SQLID statement is neither the user's primary authorization ID nor one of the associated secondary authorization IDs.

System Action: The SET CURRENT SQLID statement cannot be executed. The current SQL ID is not changed.

Programmer Response: Correct the error in the statement or contact the security administrator to have the authorization ID defined for your use.

SQLSTATE: 42503

-554 AN AUTHORIZATION ID CANNOT GRANT A PRIVILEGE TO ITSELF

Explanation: An authorization ID attempted to execute a GRANT statement in which that ID itself appears as one of the entries in the list of 'grantee' authorization IDs.

An authorization ID cannot GRANT a privilege to itself. However, if SQLRULES(STD) is in effect or CURRENT RULES contains STD, GRANT to self is allowed.

System Action: The statement cannot be executed. No privileges were granted.

Programmer Response: Refer to Chapter 4 of *DB2 SQL Reference* for information about restrictions on the use of the GRANT statement.

SQLSTATE: 42502

-555 AN AUTHORIZATION ID CANNOT REVOKE A PRIVILEGE FROM ITSELF

Explanation: An authorization ID attempted to execute a REVOKE statement in which that ID itself appears as one of the entries in the list of authorization IDs to be revoked.

An authorization ID cannot REVOKE its own privilege. However, if SQLRULES(STD) is in effect or CURRENT RULES contains STD, REVOKE to self is allowed.

System Action: The statement cannot be executed. No privileges were revoked.

Programmer Response: Refer to Chapter 5 of *DB2 SQL Reference* for information about restrictions on the use of the REVOKE statement.

SQLSTATE: 42502

-556 *authid2* CANNOT HAVE THE *privilege* PRIVILEGE *on_object* REVOKED BY *authid1* BECAUSE THE REVOKEE DOES NOT POSSESS THE PRIVILEGE OR THE REVOKER DID NOT MAKE THE GRANT

Explanation: The REVOKE statement was not successful for one of the following reasons:

- *Authid2* does not possess the *privilege*.
- The revoker, *authid1*, did not explicitly grant the privilege to *authid2*.
- *Authid2* is the owner of the specified object.
- When *privilege* is '****' the keyword ALL was used in the REVOKE statement, but *authid2* did not possess any privilege to revoke.
- When *authid1* is ALL, the BY ALL clause was used in the REVOKE statement, but *authid2* did not possess any privilege to revoke.

An authorization ID can revoke only the privileges that it has explicitly granted to other authorization IDs, unless the authorization ID has SYSADM or SYSCTRL authority and specifies the BY clause. No authorization ID, not even SYSADM, can revoke 'privileges' on an object from the object owner.

System Action: The statement cannot be executed. No privileges were revoked from any authorization ID.

Programmer Response: Check the appropriate authorization catalog tables to verify that *authid2* possesses the privilege to be revoked. Queries can be made with GRANTEE = *authid2* and the privilege column not = blanks. Correct and reissue the REVOKE statement.

If a user holding SYSADM or SYSCTRL authority receives this SQLCODE, the BY clause might have been omitted from the REVOKE statement.

SQLSTATE: 42504

-557 INCONSISTENT GRANT/REVOKE KEYWORD *keyword*. PERMITTED KEYWORDS ARE *keyword-list*

Explanation: The GRANT or REVOKE statement contains a syntax or spelling error at or before the specified 'keyword'. As an aid to the programmer, 'keyword-list' provides a list of the keywords that would be permitted in this context.

Alternatively:

- The mixture of privileges specified on the GRANT or REVOKE statement is not permitted. The privileges must all be of one type, and consistent with the form of the GRANT or REVOKE statement.
- REVOKE UPDATE (column-list) is not permitted; only REVOKE UPDATE is valid.
- The keywords DELETE, INSERT, SELECT, TRIGGER, UPDATE, REFERENCES and ALTER cannot be specified for an auxiliary table.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax of the GRANT or REVOKE statement.

SQLSTATE: 42852

-558 INVALID CLAUSE OR COMBINATION OF CLAUSES ON A GRANT OR REVOKE

Explanation: The location qualifier specified for a GRANT or REVOKE statement is invalid.

System Action: The statement cannot be executed.

Programmer Response: Refer to Chapter 5 of *DB2 SQL Reference* for valid keywords for the GRANT statement.

SQLSTATE: 56025

-559 ALL AUTHORIZATION FUNCTIONS HAVE BEEN DISABLED

Explanation: The authorization mechanism has been disabled in the DB2 subsystem. Consequently, GRANT and REVOKE statements are ignored.

System Action: The statement cannot be executed. No privileges were granted or revoked.

Programmer Response: Do not attempt to execute GRANT or REVOKE statements unless and until the authorization mechanism is enabled in the DB2 subsystem.

SQLSTATE: 57002

-567 *bind-type* AUTHORIZATION ERROR USING *auth-id* AUTHORITY PACKAGE = *package-name* PRIVILEGE = *privilege*

Explanation: The authorization ID given does not have the privilege indicated, and cannot invoke the indicated subcommand against the indicated package.

bind-type

Type of bind subcommand (BIND | REBIND | FREE).

auth-id Authorization ID of the package owner.

package-name

Name of the package (location.collection.package.version)

privilege

Name of the privilege not held:

- BINDADD—The authority to create a new package using BIND with the ADD option.
- BIND—The authority to BIND (REPLACE) or REBIND a package.
- COPY—The authority to COPY from the indicated package
- CREATE IN—The authority to create a package in the indicated collection.

System Action: The indicated package is not bound, rebound, or freed.

System Programmer Response: The indicated privilege must be granted to the authorization ID that will become the package owner.

SQLSTATE: 42501

-571 THE STATEMENT WOULD RESULT IN A MULTIPLE SITE UPDATE

Explanation:

This SQLCODE is issued in the following situations:

- When an application program operating in an IMS or CICS environment attempts to modify data at a remote location where multi-site update capabilities are not supported.

- When an application program has explicit SQL statements within a commit scope that would result in updates at multiple sites where one of the sites at which data is being updated does not support multi-site update.

This SQLCODE can be issued when an application program explicitly modifies data at a single location within a commit scope. This can occur in the following situations:

- A package or plan associated with the application program was invalidated.
- A package or plan was bound at one release of DB2 and fallback occurs to a prior release.

In the situations described above, an implicit autobind is done on behalf of the user. An autobind results in the DB2 catalog being updated. The conditions that must exist for this SQLCODE to be issued when an autobind occurs are:

- One site where data has been modified does not support multi-site update.
- The autobind occurs at a separate and distinct site from where an application program explicitly modifies data.
- At the time of the autobind, locks are being held to process an SQL statement within the application program.

System Action: The statement cannot be executed.

Programmer Response:

- Ensure that all requests for modifications to the data are confined to a single location within any given commit scope for any application that references a location that does not support multi-site update.
- For programs operating in an IMS or CICS environment where the remote database systems do not support multi-site update, all SQL statements must be read-only access.
- If an autobind is causing this SQLCODE to be issued, REBIND the plan or package.

SQLSTATE: 25000

-573 TABLE *table-name* DOES NOT HAVE A UNIQUE KEY WITH THE SPECIFIED COLUMN NAMES

Explanation: A referential constraint cannot be defined with the specified table as the parent because a unique index with the specified column names does not exist for the identified parent table.

System Action: The statement cannot be processed.

Programmer Response: Create a unique index with the specified columns for the parent table.

SQLSTATE: 42890

-574 THE SPECIFIED DEFAULT VALUE OR IDENTITY ATTRIBUTE VALUE CONFLICTS WITH THE DEFINITION OF COLUMN *column-name*

Explanation: The DEFAULT value specified for *column-name* is not valid for one of the following reasons:

- The value is not assignable to the column because the constant does not conform to the format for a constant of that data type, or the value has the incorrect length or precision.
- A floating-point constant is specified and the column is not a floating point data type
- A decimal constant is specified and non-zero digits would be truncated when assigned to the column
- The value is more than 255 bytes, including quotes for strings, introducer characters such as the X for a hex constant, fully qualified function names, and parentheses.
- Either the USER or CURRENT SQLID special register is specified and the length attribute of the character string data type is less than 8.
- A system-generated cast function was specified and the column is not defined with a user-defined distinct type
- A function was specified that is not supported. A function may only be specified when the data type is a distinct type, and in this case the specified function must be one of the system-generated cast functions associated with this distinct type.
- WITH DEFAULT is specified with a value other than NULL for a LOB column.
- A value with non-zero scale was specified for the START WITH or INCREMENT BY option of an identity column with the DECIMAL data type.

System Action: The SQL statement cannot be executed.

Programmer Response: Specify a default value that is valid for the definition of the column.

SQLSTATE: 42894

-575 VIEW *view-name* **CANNOT BE REFERENCED**

Explanation: An alteration was made to a table underlying view *view-name* which caused the view definition to become invalid. The view must be successfully regenerated with an ALTER VIEW statement before it can be referenced in a statement other than ALTER VIEW, GRANT, REVOKE, DROP, COMMENT, or LABEL.

System Action: The statement cannot be processed.

Programmer Response: Issue an ALTER VIEW statement to regenerate the view.

SQLSTATE: 51024

-577 *object-type object-name* **ATTEMPTED TO MODIFY DATA WHEN THE DEFINITION OF THE FUNCTION OR PROCEDURE DID NOT SPECIFY THIS ACTION**

Explanation: The current environment does not allow SQL statements that modify data. One of the following situations has occurred:

- A user-defined function or stored procedure *object-name* was invoked and attempted to modify data, but the function or procedure was defined without the MODIFIES SQL option.
- A user-defined function or stored procedure *object-name* was invoked and attempted to execute a data definition statement, but the function or procedure was defined without the MODIFIES SQL option.
- A function or procedure defined with READS SQL DATA, CONTAINS SQL, or NO SQL has attempted to invoke another function or procedure defined with MODIFIES SQL DATA.
- A user-defined function or stored procedure *object-name* was invoked and attempted to use a NEXTVAL expression. However, the function or procedure was defined without the MODIFIES SQL DATA option.

In an environment of nested functions and procedures, the SQL option in effect is the most restrictive one that has been specified in the nested hierarchy of functions and procedures. The SQL data access option in effect does not allow for modifying the data.

System Action: The SQL statement failed.

Programmer Response: Either use an ALTER statement to change the definition of the function or procedure to allow statements that modify data, or remove the failing SQL statement from the external function or procedure.

SQLSTATE: 38002

-579 *object-type object-name* **ATTEMPTED TO READ DATA WHEN THE DEFINITION OF THE FUNCTION OR PROCEDURE DID NOT SPECIFY THIS ACTION**

Explanation: The current environment does not allow SQL statements that read data. One of the following situations had occurred:

- A user-defined function or stored procedure *object-name* was invoked and attempted to read data, but the function or procedure was defined without the READS SQL DATA or MODIFIES SQL DATA option.
- A function or procedure defined with CONTAINS SQL or NO SQL has attempted to invoke another function or procedure defined with READS SQL DATA.

In an environment of nested functions and procedures, the SQL option in effect is the most restrictive one that has been specified in the nested hierarchy of functions and procedures. The SQL data access option in effect does not allow for reading data.

System Action: The SQL statement failed.

Programmer Response: Either use an ALTER statement to change the definition of the function or procedure to allow statements that read data, or remove the failing SQL statement from the external function or procedure.

SQLSTATE: 38004

-580 THE RESULT-EXPRESSIONS OF A CASE EXPRESSION CANNOT ALL BE NULL

Explanation: There is a CASE expression in the statement that has all the *result-expressions* (expressions following the THEN and ELSE keywords) coded with the keyword NULL.

System Action: The statement cannot be processed.

Programmer Response: Change the CASE expression to include at least one *result-expression* with a keyword other than NULL.

SQLSTATE: 42625

-581 THE DATA TYPES OF THE RESULT-EXPRESSIONS OF A CASE EXPRESSION ARE NOT COMPATIBLE

Explanation: There is a CASE expression in the statement that has *result-expressions* (expressions following THEN and ELSE keywords) that are not compatible. The data type of the *result-expressions* might be incompatible because the CASE condition result data types are not all:

- character
- graphic
- numeric
- date
- time
- timestamp

If encoded in Unicode, character and graphic data types are compatible, however. Refer to DB2 SQL Reference for more information about Unicode.

System Action: The statement cannot be processed.

Programmer Response: Correct the *result-expressions* so that they are compatible.

SQLSTATE: 42804

-582 THE SEARCH-CONDITION IN A SEARCHED-WHEN-CLAUSE CANNOT BE A QUANTIFIED PREDICATE, IN PREDICATE, OR AN EXISTS PREDICATE.

Explanation: The *search-condition* in a *searched-when-clause* specifies a quantified predicate, an IN predicate, or an EXISTS predicate, but is not allowed.

System Action: The statement cannot be processed.

Programmer Response: Correct the *search-condition*.

SQLSTATE: 42625

-583 THE USE OF FUNCTION *function-name* IS INVALID BECAUSE IT IS NOT DETERMINISTIC OR HAS AN EXTERNAL ACTION

Explanation: The function *function-name* is defined as a not deterministic function or a function with an external action. This type of function is not supported in the context in which it is used. The contexts in which these are not valid are:

- in the expression prior to the first WHEN keyword in a simple-case-expression.
- in the WHERE clause of the subselect in a CREATE VIEW statement if the WITH CHECK OPTION is specified.
- in an expression of an ORDER BY clause

System Action: The statement cannot be executed.

Programmer Response: If the use of a not deterministic or external action function was not intended, substitute a function without these characteristics. If the behavior associated with the not deterministic or external action function is intentional, use the alternate form of the statements that make that intent explicit.

- Instead of a simple-when-clause, use the corresponding searched-when-clause where the function would get specified in each search-condition.
- Remove the WITH CHECK OPTION from the CREATE VIEW statement.
- Remove the function from the ORDER BY clause. If the column is part of the result set of the query, change the expression in the ORDER BY clause to the *simple-integer* or *simple-column-name* form of the sort key. See the ORDER BY syntax diagram in the DB2 SQL Reference for more information.

SQLSTATE: 42845

-585 THE COLLECTION ID *collection-id* APPEARS MORE THAN ONCE IN THE SET *special-register* STATEMENT

Explanation: The SET statement for special register *special-register* includes *collection-id* more than once.

System Action: The statement cannot be executed.

Programmer Response: Remove duplicate occurrences of *collection-id* from the SET statement for the special register.

SQLSTATE: 42732

-586 THE TOTAL LENGTH OF THE CURRENT PATH SPECIAL REGISTER CANNOT EXCEED 2048 CHARACTERS

Explanation: The CURRENT PATH special register is defined as a VARCHAR(2048). The content of the string includes each schema name delimited with double quotes and separated from the next schema name by a comma. The total length of the string of all schema names in the CURRENT PATH cannot exceed 2048 characters. A SET PATH statement causing this message would exceed this limit.

System Action: The statement is not executed.

Programmer Response: Remove schema names to reduce the total length to fit the 2048 character maximum length. If all the schema names are required, it may be necessary to consolidate some user-defined functions so that fewer schema names are required for the CURRENT PATH.

SQLSTATE: 42907

-589 A POSITIONED DELETE OR UPDATE STATEMENT FOR CURSOR *cursor-name* SPECIFIED A ROW OF A ROWSET, BUT THE CURSOR IS NOT POSITIONED ON A ROWSET

Explanation: The FOR ROW *n* OF ROWSET clause was specified on a positioned DELETE or UPDATE statement, but the cursor is not currently positioned on a rowset.

System Action: The statement cannot be processed.

Programmer Response: Issue a FETCH statement to position the cursor on the desired rowset, and then reissue the positioned DELETE or UPDATE statement. If the cursor is not defined for rowset access, redefine the cursor first.

SQLSTATE: 24520

-590 PARAMETER NAME *parameter-name* IS NOT UNIQUE IN THE CREATE FOR ROUTINE *routine-name*

Explanation: The parameter name *parameter-name* specified on a CREATE FUNCTION or CREATE PROCEDURE statement for *routine-name* is not unique.

System Action: The statement cannot be executed.

Programmer Response: Change the name of the parameter to make all of the parameter names unique within the CREATE statement.

SQLSTATE: 42734

-592 NOT AUTHORIZED TO CREATE FUNCTIONS OR PROCEDURES IN WLM ENVIRONMENT *env-name*

Explanation: This message is issued when:

- The value of the *env-name* token is 'NO WLM ENVIRONMENT' and the check for authorization to the DB2-managed stored procedures address space failed because the NO WLM ENVIRONMENT clause was specified on the CREATE PROCEDURE or ALTER PROCEDURE statement.
- There is no DB2-managed stored procedures address space.

System Action: The statement cannot be executed.

Programmer Response: To correct the error, perform one of the following actions:

- If the value of the *env-name* token is 'NO WLM ENVIRONMENT', choose a different value for the WLM ENVIRONMENT keyword or request authorization to create objects in the specified WLM ENVIRONMENT from the system administrator.
- If there is no DB2-managed stored procedures address space, request that one be created. Also request that a RACF PERMIT be completed to allow access to this resource.

After doing one of the above, reissue the SQL statement.

SQLSTATE: 42510

-593 NOT NULL MUST BE SPECIFIED FOR ROWID OR DISTINCT TYPE COLUMN *column-name*

Explanation: ROWID columns and distinct type columns for which the source type is a ROWID do not support null values. When a ROWID column (or distinct type for which the source type is a ROWID) is defined on a CREATE TABLE, ALTER TABLE, or DECLARE TABLE statement, the NOT NULL clause must be specified for the column.

System Action: The statement cannot be executed.

Programmer Response: Change the statement to specify NOT NULL for ROWID column *column-name*.

SQLSTATE: 42831

-594 ATTEMPT TO CREATE A NULLABLE ROWID OR DISTINCT TYPE COLUMN
column-name

Explanation: A CREATE VIEW statement attempted to create a new view with a nullable ROWID column. ROWID columns (or distinct type columns for which the source type is a ROWID) do not support null values. One of the following situations has occurred:

- The subselect of a CREATE VIEW statement involves an outer join for which a column of the result table is a ROWID column that needs to allow for null values.

System Action: The statement cannot be executed.

Programmer Response: Change the content of the statement so that it does not try to create a ROWID column which must allow for null values.

SQLSTATE: 42831

-601 THE NAME OF THE OBJECT TO BE CREATED OR THE TARGET OF A RENAME STATEMENT IS IDENTICAL TO THE EXISTING NAME *name* **OF THE OBJECT TYPE** *obj-type*

Explanation: One of the following situations has been detected:

- A CREATE statement tried to create an object *name* of type *obj-type*, but an object of that type with the same name is already defined in the DB2 subsystem.
 - If *obj-type* is CONSTRAINT, the *name* was specified in the FOREIGN KEY clause, CHECK clause, PRIMARY KEY clause, or UNIQUE clause of either a CREATE or ALTER TABLE statement. All referential integrity, check constraint, primary key, and unique key constraint names defined on a table must be unique.
 - If *obj-type* is TABLE or VIEW, and a CREATE ALIAS statement failed, then the alias-name specified in the CREATE ALIAS statement is identical to the table name or view name specified. The TABLE or VIEW might not exist in the DB2 subsystem.
 - If *obj-type* is DISTINCT TYPE, and a CREATE DISTINCT TYPE statement failed, then there is already a user-defined type existing with the same name as the distinct type name specified in the CREATE DISTINCT TYPE statement.
 - If *obj-type* is FUNCTION or PROCEDURE, and a CREATE FUNCTION or CREATE PROCEDURE statement failed, then there is already a routine existing with the same name as the name

specified in the CREATE FUNCTION or CREATE PROCEDURE statement.

- If *obj-type* is PROCEDURE, and a CREATE PROCEDURE statement for an SQL procedure failed, then there may already be an SQL procedure that has the same name as the external name that was implicitly or explicitly specified.
 - If *obj-type* is FUNCTION, and a CREATE DISTINCT TYPE statement failed, then there is already a user-defined function existing with the same name as the distinct type that is specified in the CREATE DISTINCT TYPE statement.
 - If *obj-type* is SEQUENCE, and a CREATE SEQUENCE statement failed, then there is already a sequence existing with the same name as the sequence name that was specified in the CREATE SEQUENCE statement.
- A RENAME statement specified a target name *name*, but an object with the same name is already defined in the DB2 subsystem.

System Action: The CREATE, ALTER or RENAME statement cannot be executed. No new object was created, no existing object was altered, and no existing object was renamed.

Programmer Response: Either drop the existing object or choose another name. If *obj-type* is data set, do an IDCAMS DELETE of the data set before retrying the CREATE. Refer to Chapter 2 of *DB2 SQL Reference* for information about the scope of object names in DB2.

SQLSTATE: 42710

-602 TOO MANY COLUMNS SPECIFIED IN A CREATE INDEX OR ALTER INDEX STATEMENT

Explanation: The number of columns specified in the CREATE INDEX or ALTER INDEX statement exceeds 64, which is the maximum that is permitted by DB2.

System Action: The statement cannot be executed. The specified index was not created.

Programmer Response: The index definition must be modified to conform to the system-imposed column limit of 64.

SQLSTATE: 54008

-603 A UNIQUE INDEX CANNOT BE CREATED BECAUSE THE TABLE CONTAINS ROWS WHICH ARE DUPLICATES WITH RESPECT TO THE VALUES OF THE IDENTIFIED COLUMNS

Explanation: The index defined in the CREATE INDEX statement could not be created as unique because the specified table already contains rows that

are duplicates with respect to the values of the identified columns.

System Action: The statement cannot be executed.

Programmer Response: Examine the data to ascertain whether or not the duplicate data is valid. Alternatively, consider creating a nonunique index.

SQLSTATE: 23515

-604 A DATA TYPE DEFINITION SPECIFIES AN INVALID LENGTH, PRECISION, OR SCALE ATTRIBUTE

Explanation: A data type definition in a CREATE or ALTER statement contains an invalid length, precision, or scale attribute specification. In addition, the specification of data type might be incorrect or invalid. Or, the column definition in a view referenced in a CREATE TABLE LIKE *view* has an invalid length.

System Action: The statement cannot be executed. The specified object was not created or altered.

Programmer Response: Correct the syntax, and resubmit the statement. Refer to Chapter 2 of *DB2 SQL Reference* for information about valid length, precision, and scale attributes for the data type of an object.

SQLSTATE: 42611

-607 OPERATION OR OPTION *operation* IS NOT DEFINED FOR THIS OBJECT

Explanation: The operation or option cannot be performed on the object specified in the SQL statement.

System Action: The statement cannot be executed.

Programmer Response: If an option of the SQL statement is not allowed for this object, modify the SQL statement and resubmit the statement. If an operation is not defined for the object, the statement cannot be executed.

SQLSTATE: 42832

-611 ONLY LOCKMAX 0 CAN BE SPECIFIED WHEN THE LOCK SIZE OF THE TABLESPACE IS TABLESPACE OR TABLE

Explanation: This message is issued when:

- The LOCKSIZE of the table space is TABLESPACE or TABLE, and LOCKMAX is being altered to or created as a nonzero value.
- The LOCKSIZE of the table space is being altered to TABLESPACE or TABLE, and LOCKMAX is being altered to or created as a nonzero value.

If LOCKSIZE is TABLESPACE or TABLE, LOCKMAX must be 0 because lock escalation is not supported from these levels.

System Action: The statement cannot be executed.

Programmer Response: Do one of the following:

- Reissue the statement with LOCKMAX 0.
- Alter the LOCKSIZE of the table space to a value other than TABLESPACE or TABLE.

SQLSTATE: 53088

-612 *column-name* IS A DUPLICATE COLUMN NAME

Explanation: The CREATE INDEX, CREATE TABLE, CREATE VIEW or ALTER TABLE statement specifies the same *column-name* for two (or more) columns of the index, table, view, or the UPDATE OF clause of a trigger definition specifies the same column name more than once. Column names must be unique within an index, a table, a view, or in the UPDATE OF clause of a trigger definition. A column cannot be specified in more than one ALTER TABLE clause except if it is specified in an ALTER COLUMN clause and ADD CHECK CONSTRAINT clause. For ALTER TABLE ALTER COLUMN, the column name that is specified cannot be a column that is added in the same ALTER TABLE statement.

System Action: The statement cannot be executed. The specified index, table, view, or trigger was not created.

Programmer Response: Correct the CREATE statement to specify unique names for each of the columns of the index, table, view, or the columns in the UPDATE OF clause of a trigger definition. Correct the ALTER statement to specify unique names for each of the ALTER COLUMN clauses.

This error can also occur on CREATE TABLE when a column list of a PRIMARY KEY, FOREIGN KEY, or UNIQUE clause contains two or more occurrences of the same column name.

SQLSTATE: 42711

-613 THE PRIMARY KEY OR A UNIQUE CONSTRAINT IS TOO LONG OR HAS TOO MANY COLUMNS

Explanation: This error code results from a problem with the columns that are defined for a PRIMARY KEY or UNIQUE constraint. The number of columns is greater than 64, or the sum of the column length attributes is greater than the number allowed for the type of index.

If the failing statement was an ALTER TABLE statement that included the SET DATA TYPE clause to alter the definition of an existing column, a column being changed is part of a unique or primary constraint. The new sum of the lengths of the columns of the keys exceeds 255-*n*, where *n* is the number of columns allowing nulls. This sum currently exceeds the maximum number that is allowed.

If the failing statement was an ALTER TABLE statement with a PARTITIONING KEY specification, only 64 columns can be specified, and the combined lengths of all columns specified in the PARTITIONING KEY clause exceeds the maximum length of 255-*n*, where *n* is the number of columns that can contain null values.

System Action: The CREATE or ALTER statement cannot be executed. The specified table cannot be created or altered.

Programmer Response: Change the table definition to keep within the prescribed limits.

SQLSTATE: 54008

-614 THE INDEX CANNOT BE CREATED OR ALTERED, OR THE LENGTH OF A COLUMN CANNOT BE CHANGED BECAUSE THE SUM OF THE INTERNAL LENGTHS OF THE COLUMNS FOR THE INDEX IS GREATER THAN THE ALLOWABLE MAXIMUM

Explanation: The index could not be created or the length of a column cannot be changed because the sum of the internal lengths of the key columns would exceed the allowable maximum. The maximum permitted key length is as follows:

- For PADDED indexes, the sum of the length attributes of the columns must not be greater than 2000-*n*, where *n* is the number of columns that contain null values.
- For NOT PADDED indexes, the sum of the length attributes of the columns must not be greater than 2000-*n-2m*, where *n* is the number of nullable columns and *m* is the number of varying length columns.

System Action: The statement cannot be executed. The specified index was not created or the length of the column was not changed.

Programmer Response: The definition for the index must be modified (possibly by eliminating one or more key columns) to reduce the length of the key to the permitted maximum. Refer to Chapter 5 of *DB2 SQL Reference* if you require a complete explanation of other possible maximum key lengths and how they are computed.

SQLSTATE: 54008

-615 *operation-type* IS NOT ALLOWED ON A PACKAGE IN USE

Explanation: The operation '*operation-type*' cannot be performed because the package is in use by the same application process.

operation-type

Type of bind operation (BIND, REBIND or DROP).

System Action: The BIND, REBIND, or DROP operation on the package is not performed.

Programmer Response: Change the application to invoke the BIND, REBIND or DROP operation when the package is not use by the same application process.

SQLSTATE: 55006

-616 *obj-type1 obj-name1* CANNOT BE DROPPED BECAUSE IT IS REFERENCED BY *obj-type2 obj-name2*

Explanation: Some types of objects cannot be dropped if there are other objects which are dependent upon them. For example, a storage group cannot be dropped if there are one or more existing table spaces that use that storage group.

Execution of the specified DROP statement would drop object *obj-name1* of type *obj-type1* on which object *obj-name2* of type *obj-type2* is dependent.

System Action: The statement cannot be processed. The specified object was not dropped.

Programmer Response: Verify that the object specified in the DROP statement was, indeed, the object to be dropped. If so, all the existing objects that have a dependency on that object must first be dropped.

A LOB table space cannot be dropped when an association exists between it and another table space. The associated base table must be dropped first.

A populated auxiliary table and its index can only be dropped by dropping the associated base table.

A trigger package cannot be explicitly dropped. It can only be dropped by dropping the associated trigger with a DROP TRIGGER statement or by dropping the triggering table.

SQLSTATE: 42893

-618 OPERATION *operation* IS NOT ALLOWED ON SYSTEM DATABASES

Explanation: System databases cannot be the object of certain types of operations. The attempted '*operation*' cannot be performed on system databases. One possible reason for this error is that CCSID ASCII was specified when a system database was being created.

System Action: The statement cannot be executed. No changes were made to the specified system database.

Programmer Response: Do not attempt to perform the requested operation on system databases.

SQLSTATE: 42832

-619 OPERATION DISALLOWED BECAUSE THE DATABASE IS NOT STOPPED

Explanation: The statements CREATE, ALTER or DROP for a table space, table, or index in the database cannot be processed unless the database is stopped (using the STOP command).

System Action: The statement cannot be processed.

Programmer Response: Issue the -DISPLAY DATABASE command to verify that the work file database is stopped before resubmitting the statement.

SQLSTATE: 55011

-620 KEYWORD *keyword* IN *stmt type* STATEMENT IS NOT PERMITTED FOR A *space type* SPACE IN THE *database type* DATABASE

Explanation: The specified *keyword* in the SQL statement *stmt type* indicates an attribute that is not allowed for a *space type* space in the *database type* database.

keyword

Specifies the keyword that is not allowed.

stmt type

CREATE or ALTER

CREATE is for CREATE TABLESPACE or CREATE INDEX.

ALTER is for ALTER TABLESPACE or ALTER INDEX.

space type

TABLE or INDEX

TABLE is for table space, and INDEX is for index space.

database type

WORK FILE or TEMP

System Action: The statement cannot be executed.

Programmer Response: Refer to *DB2 SQL Reference* for information about attributes that are allowed or not allowed for a *space type* space in a *database type* database. Correct and resubmit the *stmt type* statement.

SQLSTATE: 53001

-621 DUPLICATE DBID *dbid* WAS DETECTED AND PREVIOUSLY ASSIGNED TO *database-name*

Explanation: The current database being created was assigned a DBID of '*dbid*', which is identical to the DBID assigned to database '*database-name*'. An inconsistency exists between the DB2 catalog and directory.

System Action: The statement cannot be executed. No new object was created, and the existing object was not altered or modified.

Programmer Response: Notify the system programmer. The inconsistency must be corrected before CREATE DATABASE will be successful.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SQLSTATE: 58001

-622 FOR MIXED DATA IS INVALID BECAUSE THE MIXED DATA INSTALL OPTION IS NO

Explanation: FOR MIXED DATA is specified in a column description of a CREATE or ALTER TABLE, a CREATE FUNCTION, or a CREATE PROCEDURE statement, but the MIXED DATA install option is set to NO. FOR MIXED DATA is valid only when the MIXED DATA install option is set to YES.

System Action: The statement is not executed.

Programmer Response: Either change the install option or the FOR clause. If the install option is correctly set to NO, the allowable FOR clause options are BIT and SBCS.

SQLSTATE: 56031

-623 A CLUSTERING INDEX ALREADY EXISTS ON TABLE *table-name*

Explanation: A given table can have only one cluster index. This error can occur for the following reasons:

- A CREATE INDEX statement would create a second cluster index on the specified table.
- An ALTER INDEX statement specified the CLUSTER clause, but there is already a clustering index defined for the table.

System Action: The statement cannot be executed.

Programmer Response: Check to determine the identity and validity of the existing cluster index on the object table. Alternatively, consider creating the index without the CLUSTER attribute.

SQLSTATE: 55012

-624 TABLE *table-name* ALREADY HAS A PRIMARY KEY OR UNIQUE KEY CONSTRAINT WITH SPECIFIED COLUMNS

Explanation: The code is used to report that a primary key or unique key cannot be defined in an ALTER TABLE statement because the table either:

- Already has a primary key, or

- Has an existing unique constraint with the same definition (same set of columns specified) as the new key.

System Action: The statement cannot be run.

Programmer Response: Do not attempt to define a table with more than one primary key, or a unique constraint that duplicates the definition of an existing unique constraint.

SQLSTATE: 42889

-625 TABLE *table-name* DOES NOT HAVE AN INDEX TO ENFORCE THE UNIQUENESS OF THE PRIMARY OR UNIQUE KEY

Explanation: The ALTER TABLE statement is invalid for one of the following reasons:

- The table does not have a unique index with a key that is identical to the nominated primary or unique key.
- A unique index exists, but the index is already being used to enforce referential constraints. In this case, DB2 does not choose the index to enforce the primary or unique key.

System Action: The statement cannot be executed.

Programmer Response: Make sure the key list specified on the ALTER TABLE statement identifies an existing unique index of the table that is not already enforcing referential constraints.

SQLSTATE: 55014

-626 THE ALTER STATEMENT IS NOT EXECUTABLE BECAUSE THE PAGE SET IS NOT STOPPED

Explanation: An ALTER statement specifies an ADD PART, BUFFERPOOL, USING, PRIQTY, SECQTY, ERASE, or GBPCACHE clause, but the page set is not stopped.

System Action: The SQL statement cannot be executed.

Programmer Response: Stop the page set before resubmitting the statement.

SQLSTATE: 55015

-627 THE ALTER STATEMENT IS INVALID BECAUSE THE PAGESET HAS USER-MANAGED DATA SETS

Explanation: This code is used if a PRIQTY, SECQTY, or ERASE clause is specified, USING STOGROUP is not specified, and the page set has user-managed data sets.

System Action: The SQL statement cannot be executed.

Programmer Response: Verify that the correct table or partition is specified. The primary and secondary space allocation of a user-managed data set cannot be altered by means of an ALTER statement.

SQLSTATE: 55016

-628 THE CLAUSES ARE MUTUALLY EXCLUSIVE

Explanation: Mutually exclusive clauses were specified in one or more of the following ways:

- A CREATE TABLESPACE statement contains both the SEGSIZE and Numparts clauses.
- A CREATE TABLESPACE statement contains both the SEGSIZE and LARGE clauses.
- A CREATE TABLESPACE statement contains both the SEGSIZE and MEMBER CLUSTER clauses.
- A CREATE or ALTER TABLESPACE contains both the LOCKPART YES and LOCKSIZE TABLESPACE
- A 'column-definition' contains both NOT NULL and DEFAULT NULL clauses.
- A 'column-definition' contains both FIELDPROC and DEFAULT clauses.
- A select-statement contains both the update-clause and the FOR FETCH ONLY clause.
- An ALTER TABLE statement contains both a DROP CONSTRAINT clause and either a DROP FOREIGN KEY, DROP CHECK, DROP PRIMARY KEY, or DROP UNIQUE clause.
- A CREATE or ALTER TABLESPACE statement contains both LOCKPART YES and LOCKSIZE TABLESPACE.
- A CREATE TRIGGER statement specifies more than one correlation name for OLD, NEW, OLD_TABLE, or NEW_TABLE. Each of these correlation specifications can appear no more than once in the CREATE TRIGGER statement.
- A CREATE FUNCTION statement contains both a CAST FROM clause and a SOURCE clause.
- A CREATE FUNCTION statement contains both a SOURCE clause and a RETURNS TABLE clause.
- A CREATE FUNCTION statement contains both a SOURCE clause and a clause used to define an external function (For example, EXTERNAL, LANGUAGE, NO SQL).
- A CREATE or ALTER FUNCTION statement specified SCRATCHPAD. SCRATCHPAD must not be specified when LANGUAGE JAVA or PARAMETER STYLE JAVA is also specified for a function.
- A CREATE or ALTER FUNCTION statement specified FINAL CALL. FINAL CALL must not be specified when LANGUAGE JAVA or PARAMETER STYLE JAVA is also specified for a function.
- A CREATE or ALTER FUNCTION or PROCEDURE statement specified LANGUAGE JAVA, LANGUAGE

COMPJAVA, or PARAMETER STYLE JAVA, with DBINFO. DBINFO must not be specified in these cases.

- A CREATE or ALTER FUNCTION or PROCEDURE statement specified LANGUAGE JAVA, LANGUAGE COMPJAVA, or PARAMETER STYLE JAVA, with RUN OPTIONS. RUN OPTIONS must not be specified in these cases.
- A CREATE or ALTER PROCEDURE statement specified PARAMETER STYLE JAVA, but LANGUAGE COMPJAVA or LANGUAGE JAVA was not specified.
- A CREATE or ALTER PROCEDURE statement specified LANGUAGE JAVA, but did not specify PARAMETER STYLE JAVA.
- A CREATE or ALTER FUNCTION statement specified PARAMETER STYLE JAVA, but LANGUAGE JAVA was not specified.
- A CREATE or ALTER FUNCTION statement specified LANGUAGE JAVA, but did not specify PARAMETER STYLE JAVA.
- A CREATE or ALTER PROCEDURE statement specified LANGUAGE JAVA with NO WLM ENVIRONMENT. NO WLM ENVIRONMENT must not be specified when LANGUAGE JAVA or LANGUAGE COMPJAVA is also specified for a procedure.
- A CREATE or ALTER PROCEDURE statement attempts to use the NO WLM ENVIRONMENT and PROGRAM TYPE SUB options. When NO WLM ENVIRONMENT is used, then SECURITY must also be used.
- A CREATE or ALTER PROCEDURE statement attempts to use both NO WLM ENVIRONMENT and either USER or DEFINER for SECURITY. When NO WLM ENVIRONMENT is used, then SECURITY DB2 must also be used.
- A CREATE or ALTER PROCEDURE statement contains both a LANGUAGE REXX clause, and a PARAMETER STYLE DB2SQL or PARAMETER STYLE JAVA clause.
- An ALTER TABLE statement contains both an ALTER COLUMN clause and a VALIDPROC clause.
- An ALTER TABLE statement contains both an ALTER COLUMN clause and a clause other than the check constraint clause.
- An ALTER TABLE statement contains either an ADD MATERIALIZED QUERY or DROP MATERIALIZED QUERY clause, and some other clauses.
- The AS (*subselect*) clause of a DECLARE GLOBAL TEMPORARY TABLE statement contains both an INCLUDING COLUMN DEFAULTS clause and a USING TYPE DEFAULTS clause.
- A CREATE DATABASE statement contains both the AS WORKFILE clause and the AS TEMP clause.

- If INSENSITIVE or SENSITIVE is specified, then SCROLL must also be specified, either on DECLARE CURSOR or with the ATTRIBUTES clause of the PREPARE statement.
- If SCROLL is specified, then either INSENSITIVE or SENSITIVE STATIC must also be specified, either on DECLARE CURSOR or with the ATTRIBUTES clause of the PREPARE statement.
- The *attribute-string* specified in the ATTRIBUTES clause of the PREPARE statement cannot specify conflicting options.
- LANGUAGE JAVA is not allowed for table functions.
- UNIQUE and UNIQUE WHERE NOT NULL cannot be specified with PARTITIONED on CREATE INDEX.
- EXTERNAL NAME is not allowed on ALTER TABLE for an SQL procedure. You may attempt the same action by issuing a DROP for the procedure, and rebuilding it with CREATE PROCEDURE.

Programmer Response: Change the options specified in the statement, and reissue the statement.

SQLSTATE: 42613

-629 SET NULL CANNOT BE SPECIFIED BECAUSE FOREIGN KEY *name* CANNOT CONTAIN NULL VALUES

Explanation: The code SET NULL option of the indicated FOREIGN KEY clause is invalid because no column of the key allows null values. The *name* is the constraint-name specified in the FOREIGN KEY clause or, if a constraint-name was not specified, the first column-name specified in the clause.

System Action: The statement cannot be processed.

Programmer Response: Change a column of the key to allow null values or change the delete rule.

SQLSTATE: 42834

-631 FOREIGN KEY *name* IS TOO LONG OR HAS TOO MANY COLUMNS

Explanation: This code is used to report that the sum of the length attributes of the columns identified in the indicated FOREIGN KEY clause is greater than 255 bytes or the number of columns identified is greater than 64. The 'name' is the constraint-name specified in the FOREIGN KEY clause or, if a constraint-name was not specified, the first column-name specified in the clause.

System Action: The statement cannot be executed.

Programmer Response: The table definition must be modified to conform to the system-imposed limit of the sum of the length attributes of the columns identified in the PRIMARY KEY clause.

SQLSTATE: 54008

-632 THE TABLE CANNOT BE DEFINED AS A DEPENDENT OF *table-name* BECAUSE OF DELETE RULE RESTRICTIONS

Explanation: This code is used to report that the object of an ALTER TABLE statement cannot be defined as a dependent of the indicated table because either:

- The relationship would form a cycle that would cause the table to be delete-connected to itself.
- The relationship would cause the table to be delete-connected to the indicated table through multiple paths and the delete rule of the existing relationship is SET NULL.

The error is due to the delete rules of existing relationships, not the delete rule specified in the FOREIGN KEY clause of the ALTER TABLE statement.

System Action: The statement cannot be executed.

Programmer Response: Eliminate the particular FOREIGN KEY clause from the ALTER or CREATE TABLE statement.

SQLSTATE: 42915

-633 THE DELETE RULE MUST BE *delete-rule*

Explanation: The code is used to report that the 'delete-rule' specified in a FOREIGN KEY clause of the ALTER TABLE statement is invalid. The indicated 'delete-rule' is required because:

- A self-referencing constraint must have a 'delete-rule' of CASCADE or NO ACTION.
- The relationship would cause the table to be delete-connected to the same table through multiple paths and such relationships must have the same 'delete-rule'.

System Action: The statement cannot be executed.

Programmer Response: Change the 'delete rule' in the FOREIGN KEY clause.

SQLSTATE: 42915

-634 THE DELETE RULE MUST NOT BE CASCADE

Explanation: The code is used to report that the CASCADE delete rule specified in the FOREIGN KEY clause of an ALTER TABLE statement is invalid because:

- The relationship would form a cycle that would cause a table to be delete-connected to itself.
- The relationship would cause another table to be delete-connected to the same table through multiple paths with different delete rules or with a delete rule equal to SET NULL.

System Action: The statement cannot be executed.

Programmer Response: Change the delete rule.

SQLSTATE: 42915

-635 THE DELETE RULES CANNOT BE DIFFERENT OR CANNOT BE SET NULL

Explanation: The code is used to report that the delete rules specified in two FOREIGN KEY clauses of the CREATE TABLE statement are invalid because the table would be delete-connected to the same table through multiple paths involving relationships with different delete rules or with delete rules of SET NULL.

System Action: The statement cannot be executed.

Programmer Response: Change the delete rule.

SQLSTATE: 42915

-636 THE PARTITIONING KEYS FOR PARTITION *part-num* ARE NOT SPECIFIED IN ASCENDING OR DESCENDING ORDER

Explanation: In the CREATE INDEX or ALTER INDEX statement for the CLUSTER index for a partitioned table (that is, a table residing in a partitioned table space), the partitioning key values specified in the limit key value specifications were not in either ascending or descending order.

System Action: The statement cannot be executed. The specified cluster index was not created.

Programmer Response: Correct the limit key value specifications in the CREATE INDEX or ALTER INDEX statement for the identified partition so that the limit key values for successive partitions are in strictly ascending or descending order.

SQLSTATE: 56016

-637 DUPLICATE *keyword* KEYWORD

Explanation: The SQL statement contains a duplicate specification for the keyword *keyword*. For example:

- DEFAULT, UNIQUE, and PRIMARY can only be specified once in a column definition.
- UNIQUE and PRIMARY cannot both be specified for the same column definition.
- PRIMARY can only be specified once in a CREATE TABLE statement.
- The *attribute-string* specified in the ATTRIBUTES clause of the PREPARE statement cannot specify an option more than once.

System Action: The statement cannot be processed.

Programmer Response: Correct the statement by removing duplicate clauses.

SQLSTATE: 42614

-638 **TABLE *table-name* CANNOT BE
CREATED BECAUSE COLUMN
DEFINITION IS MISSING**

Explanation: The CREATE TABLE statement does not contain any column definition.

System Action: The SQL statement cannot be executed.

Programmer Response: Add column definition to the statement.

SQLSTATE: 42601

-639 **A NULLABLE COLUMN OF A FOREIGN
KEY WITH A DELETE RULE OF SET
NULL CANNOT BE A COLUMN OF THE
KEY OF A PARTITIONED INDEX**

Explanation: A partition key of the clustering index cannot be updated. Therefore, a foreign key column with a delete rule of SET NULL cannot be a column of a partition key if that column is nullable. If this error occurs for an ALTER TABLE operation, the foreign key cannot be created. If this error occurs for a CREATE INDEX operation, the index cannot be created.

System Action: The statement cannot be executed.

Programmer Response: Review the delete rule of the referential constraint and the partition keys for the index. Do one of the following:

- If the operation in error was CREATE INDEX, either change the index partition key definition or drop and redefine the referential constraint with a different delete rule.
- If the operation in error was ALTER TABLE, change the referential delete rule so that all nullable index keys are not part of the foreign keys.

SQLSTATE: 56027

-640 **LOCKSIZE ROW CANNOT BE
SPECIFIED BECAUSE TABLE IN THIS
TABLESPACE HAS TYPE 1 INDEX**

Explanation: If LOCKSIZE ROW is specified for a table space, all indexes on tables in the table space must be type 2 indexes. The following SQL statement identifies all the type 1 indexes:

```
SELECT I.CREATOR, I.NAME
FROM SYSIBM.SYSINDEXES I,
SYSIBM.SYSTABLES T
WHERE INDEXTYPE = ' '
AND T.TSNAME = 'table_space_name'
AND T.DBNAME = 'database_name'
AND T.CREATOR = I.TBCREATOR
AND T.NAME = I.TBNAME;
```

where '*table_space_name*' is the name of the table space that is to be altered; '*database_name*' is the name of the database that contains the table space.

System Action: The statement cannot be executed.

Programmer Response: Since the LOCKSIZE ROW on the table space and the type 1 indexes conflict, either use the ALTER INDEX statement to convert all type 1 indexes to type 2 indexes or use another LOCKSIZE option.

SQLSTATE: 56089

-643 **CHECK CONSTRAINT EXCEEDS
MAXIMUM ALLOWABLE LENGTH**

Explanation: The check constraint definition exceeds the maximum allowable limit of 3800 characters. The redundant blank spaces are excluded from this limit.

System Action: The CREATE TABLE or ALTER TABLE statement failed.

Programmer Response: Rewrite the check constraint definition so that it is less than 3800 characters. You might need to divide the check constraint into two or more smaller check constraints.

SQLSTATE: 54024

-644 **INVALID VALUE SPECIFIED FOR
KEYWORD OR CLAUSE**
keyword-or-clause IN STATEMENT
stmt-type

Explanation: The value specified for the *keyword-or-clause* parameter in the *stmt-type* SQL statement is not a permitted value.

System Action: The SQL statement cannot be executed.

Programmer Response: Correct the statement. Refer to Chapter 5 of *DB2 SQL Reference* for information about the permissible values for the *keyword-or-clause* keyword in *stmt-type* statements.

SQLSTATE: 42615

-646 **TABLE *table-name* CANNOT BE
CREATED IN SPECIFIED TABLE SPACE
table-space-name BECAUSE IT
ALREADY CONTAINS A TABLE**

Explanation: The table space specified in a CREATE TABLE statement is a partitioned, implicitly defined, or LOB table space in which an existing table already resides. Only one table may reside in a partitioned, implicitly defined, or LOB table space.

System Action: The statement cannot be executed. The specified table was not created.

Programmer Response: Verify that the correct table space was specified in the CREATE statement. Do not attempt to create more than one table in a partitioned, implicitly defined, or LOB table space.

SQLSTATE: 55017

-647 BUFFERPOOL *bp-name* CANNOT BE SPECIFIED BECAUSE IT HAS NOT BEEN ACTIVATED

Explanation: The buffer pool specified in a CREATE or ALTER statement for a table space or index (index space) is not activated.

Table spaces and indexes (index spaces) can only be assigned or reassigned to buffer pools that are currently activated.

System Action: The statement cannot be executed. The specified table space or index space was not created or altered.

Programmer Response: Verify that the proper buffer pool was specified in the CREATE or ALTER statement. Use the -DISPLAY BUFFERPOOL command to display the attributes of the buffer pool and determine if the buffer pool is activated. If the buffer pool is not activated, use the -ALTER BUFFERPOOL command to change the VPSIZE from 0 to the desired size.

SQLSTATE: 57003

-650 THE ALTER STATEMENT CANNOT BE EXECUTED, REASON *reason*

Explanation: The ALTER statement cannot be executed for one of the following reasons:

- 1 Alter to type 1 index is not allowed for the index whose associated table space has a LOCKSIZE specification of ROW.
- 2 Alter to type 1 index is not allowed for the index defined with UNIQUE WHERE NOT NULL.
- 3 Alter to type 1 index is not allowed for the index whose associated table space has been defined as a LARGE table space.
- 4 Alter to type 1 index is not allowed for an index on an ASCII table.
- 5 Alter PIECESIZE is not allowed for a partitioning index.
- 6 Alter PIECESIZE 4G is not allowed for non-partitioned indexes on a non-LARGE table.
- 11 Alter VALUES is not allowed for an index on a partitioned base table with LOB columns or the table itself.
- 12 ALTER INDEX is not allowed when there is a pending SQL STATEMENT.
- 13 ALTER TABLE is not allowed when there is a pending SQL STATEMENT.
- 14 ALTER INDEX VALUES is not allowed when using table-controlled partitioning.
- 15 Using ALTER to change the attributes of a

partition *values* is not allowed for an index on a partitioned basetable with LOB columns, or the table itself.

System Action: The ALTER statement is not executed.

Programmer Response: Correct the error according to the given reason and reissue the statement.

SQLSTATE: 56090

-651 TABLE DESCRIPTION EXCEEDS MAXIMUM SIZE OF OBJECT DESCRIPTOR.

Explanation: The CREATE TABLE or ALTER TABLE statement causes the table descriptor (record OBD) to exceed the object descriptor size limit of 32KB.

Programmer Response: Change the statement by reducing either the number or length (or a combination of both) of the user-defined default string constants or check constraints and execute the statement again.

System Action: The statement is not executed. For an ALTER TABLE statement, the definition of the table is unchanged. For a CREATE TABLE statement, the table is not created.

SQLSTATE: 54025

-652 VIOLATION OF INSTALLATION DEFINED EDIT OR VALIDATION PROCEDURE *proc-name*

Explanation: The result of the SQL statement has been rejected by the installation defined edit or validation procedure 'proc-name' for the object table.

System Action: The statement cannot be executed. The contents of the object table were not modified.

Programmer Response: Determine the requirements imposed by the edit or validation procedure for inserts and updates of the object table.

SQLSTATE: 23506

-653 TABLE *table-name* IN PARTITIONED TABLE SPACE *t-space-name* IS NOT AVAILABLE BECAUSE ITS PARTITIONED INDEX HAS NOT BEEN CREATED

Explanation: An attempt has been made to insert or manipulate data in or create a view on a partitioned table (that is, a table residing in a partitioned table space) before the partitioned index for that table has been created.

A table residing in a partitioned table space cannot be referenced in any SQL manipulative statement or a CREATE VIEW statement before the partitioned index for that table has been created.

System Action: The statement cannot be executed.

Programmer Response: Verify that the correct table was specified in the statement. If so, ensure that the partitioned index for the table has been created successfully before attempting to execute any SQL manipulative statements that reference that table.

SQLSTATE: 57004

-655 THE CREATE OR ALTER STOGROUP IS INVALID BECAUSE THE STORAGE GROUP WOULD HAVE BOTH SPECIFIC AND NON-SPECIFIC VOLUME IDS

Explanation: One of the following error conditions occurred:

- Both a specific and a non-specific (*) volume ID are specified in the VOLUMES clause of a CREATE STOGROUP statement.
- Both a specific and a non-specific (*) volume ID are specified in an ADD VOLUMES clause of an ALTER STOGROUP statement.
- A specific volume ID is specified in an ADD VOLUMES clause of an ALTER of a storage group that has non-specific volume IDs or mixed volume IDs.
- A non-specific volume ID (*) is specified in an ADD VOLUMES clause of an ALTER of a storage group that has specific volume IDs or mixed volume IDs.

System Action: The statement is not executed.

Programmer Response: Specify either specific or non-specific volume IDs in the VOLUMES clause of CREATE STOGROUP statement and the ADD VOLUMES clause of the ALTER STOGROUP statement. To add specific volume IDs to a storage group with non-specific volume IDs, use the REMOVE VOLUMES clause to remove the non-specific volume IDs. To add non-specific volume IDs to a storage group with specific volume IDs, use the REMOVE VOLUMES clause to remove the specific volume IDs.

SQLSTATE: 56036

-658 A *object-type* CANNOT BE DROPPED USING THE *statement* STATEMENT

Explanation: A DROP statement was issued, but the object cannot be explicitly dropped. The object must be dropped by dropping an associated object:

TRIGGER PACKAGE

A *trigger package* cannot be dropped with the DROP PACKAGE statement. A trigger package can only be dropped implicitly when the associated trigger is dropped using the DROP TRIGGER statement.

CAST FUNCTION

A *cast function* cannot be explicitly dropped with the DROP FUNCTION statement. A cast

function can only be dropped implicitly when the associated distinct type is dropped using the DROP DISTINCT TYPE statement.

System Action: The SQL statement cannot be executed.

Programmer Response: Issue the appropriate DROP statement to drop the intended objects.

SQLSTATE: 42917

-660 INDEX *index-name* CANNOT BE CREATED OR ALTERED ON PARTITIONED TABLE SPACE *tSPACE-name* BECAUSE KEY LIMITS ARE NOT SPECIFIED

Explanation: The CREATE INDEX or ALTER INDEX statement did not specify limit key values for the partitions of the table space. To create a clustering index for a table in a partitioned table space, or to modify those values using ALTER INDEX, you must include those values.

System Action: The statement cannot be executed. The specified cluster index was not created or altered.

Programmer Response: Verify that the correct table was specified in the CREATE INDEX or ALTER INDEX statement. If so, the definition for the partitioned table space must be examined so that a proper definition for the cluster index for the table may be constructed. Refer to Chapter 5 of *DB2 SQL Reference* for information about the requirements that must be satisfied by the definitions for the cluster indexes for partitioned tables.

SQLSTATE: 53035

-661 INDEX *index-name* CANNOT BE CREATED ON PARTITIONED TABLE SPACE *tSPACE-name* BECAUSE THE NUMBER OF PART SPECIFICATIONS IS NOT EQUAL TO THE NUMBER OF PARTITIONS OF THE TABLE SPACE

Explanation: The CREATE INDEX statement for the cluster index on a partitioned table (that is, a table residing in a partitioned table space) does not contain the same number of PART specifications as there are partitions in the table space. The definition for the cluster index for a partitioned table must contain exactly as many PART specifications as there are partitions in the table space in which that table resides. Also, the part numbers must be valid and unique.

System Action: The statement cannot be executed. The specified cluster index was not created.

Programmer Response: Examine the definition of the partitioned table space to determine how many partitions have been specified, and then correct the syntax of the CREATE INDEX statement to provide the proper number of PART specifications. Refer to Chapter 5 of *DB2 SQL Reference* for information about the

definitions for cluster indexes on partitioned tables.

SQLSTATE: 53036

-662 A PARTITIONED INDEX CANNOT BE CREATED ON A NON-PARTITIONED TABLE SPACE *tspace-name*

Explanation: The CREATE INDEX statement contains PART specifications, but the specified object table is not partitioned (that is, does not reside in a partitioned table space).

System Action: The statement cannot be executed. The specified index was not created.

Programmer Response: Verify that the proper object table was specified in the statement. Refer to Chapter 5 of *DB2 SQL Reference* for information about the proper usage of PART specifications in CREATE INDEX statements.

SQLSTATE: 53037

-663 THE NUMBER OF KEY LIMIT VALUES IS EITHER ZERO, OR GREATER THAN THE NUMBER OF COLUMNS IN THE KEY OF INDEX *index-name*

Explanation: The number of limit key value specifications provided in at least one of the PART specifications of the CREATE INDEX or ALTER INDEX statement is either zero or greater than the number of columns in the index key.

System Action: The statement cannot be executed. The specified index was not created.

Programmer Response: Correct the statement so that each PART specification contains exactly the same number of limit key value specifications as there are columns in the index key.

SQLSTATE: 53038

-665 THE PART CLAUSE OF AN ALTER STATEMENT IS OMITTED OR INVALID

Explanation: The ALTER statement is invalid for one of the following reasons:

- The table space or index is not partitioned and the PART clause is specified.
- The table space or index is partitioned, a partition attribute (FREEPAGE or PCTFREE) is specified, and the PART clause is not specified.
- The integer specified in the PART clause does not identify a partition of the table space or index.
- A USING, PRIQTY, SECQTY, or ERASE clause is used to alter storage attributes, but the partition is not specified.
- A GBPCACHE clause is used to alter the group buffer pool caching attributes, but the partition is not specified.

- The VALUES clause is specified without the PART clause. You must specify PART to change VALUES.
- Using ALTER to change the attributes of a partition *values* is not allowed for an index on a partitioned base table with LOB columns, or the table itself.

System Action: The SQL statement cannot be executed.

Programmer Response: Determine whether the table space or index you want to alter is partitioned. If it is partitioned, specify a PART clause that identifies the partition you want to alter. If it is not partitioned, do not specify the PART clause.

SQLSTATE: 53039

-666 *stmt-verb* object CANNOT BE EXECUTED BECAUSE *function* IS IN PROGRESS

Explanation: The SQL statement could not be executed because the named function was executing at the time.

stmt-verb

The type of data definition language (DDL) statement

object The DB2 object type

function

A utility, the governor, or the distributed data facility (DDF)

If the object is part of the communications database, it cannot be dropped while the DDF is active.

System Action: The statement was not executed.

Programmer Response: If the function is a utility, wait for the function to complete or stop. Then resubmit the statement for execution.

If the function is the governor, the statement cannot be executed until the resource limit facility is stopped or switched to a different resource limit specification table (RLST). In a DB2 data sharing environment, the resource limit facility must be stopped on all members of the DB2 data sharing group or all members must switch to an RLST that is not associated with the object.

If the function is the DDF, the facility must be stopped before the object can be dropped. In a DB2 data sharing environment, the facility must be stopped on all members of the DB2 data sharing group.

SQLSTATE: 57005

-667 THE CLUSTERING INDEX FOR A PARTITIONED TABLE SPACE CANNOT BE EXPLICITLY DROPPED

Explanation: The DROP INDEX statement attempted to drop the cluster index for a table residing in a partitioned table space. The cluster index for such a

table cannot be dropped explicitly with the DROP INDEX statement.

System Action: The statement cannot be executed. The specified index was not dropped.

Programmer Response: The cluster index for a table in a partitioned table space can only be dropped implicitly when the associated partitioned table space is dropped.

SQLSTATE: 42917

-668 THE COLUMN CANNOT BE ADDED TO THE TABLE BECAUSE THE TABLE HAS AN EDIT PROCEDURE

Explanation: The ALTER TABLE statement attempted to add a column to a table that has an edit procedure. If a table has an edit procedure, no columns can be added to it.

System Action: The statement cannot be executed. The specified table was not altered.

Programmer Response: Verify that the correct table was specified in the ALTER statement. Do not attempt to ALTER the definition of a table that has an installation-written edit procedure associated with it.

SQLSTATE: 56018

-669 THE OBJECT CANNOT BE EXPLICITLY DROPPED. REASON *reason-code*

Explanation: The DROP statement failed for the reason indicated by the *reason-code* as follows:

- 0001** The DROP TABLE statement attempted to drop a table that resides in a partitioned table space.
- 0002** The DROP INDEX statement attempted to drop an index required to enforce the primary key, unique key, or referential constraint of the table.

System Action: The statement cannot be processed. The object is not dropped.

Programmer Response: If the statement is a DROP TABLE statement, the table of a partitioned table space can only be dropped implicitly when the table space itself is dropped.

If the statement is a DROP INDEX statement and you do not want to keep the primary key, unique key, or referential constraint, use the DROP CONSTRAINT clause of the ALTER TABLE statement to remove the constraint, then drop the index.

SQLSTATE: 42917

-670 THE RECORD LENGTH OF THE TABLE EXCEEDS THE PAGE SIZE LIMIT

Explanation: The row length for a table cannot exceed the page size of the table space in which that table resides (or is to reside). The page size of the table space is determined by the buffer pool used by that table space.

One of following conditions may occur:

- As defined in a CREATE TABLE statement, the row length for the table would exceed the page size of the specified (or default) table space.
- In the case of an ALTER TABLE statement, addition of the specified column would cause the row length of the table to exceed the page size of the table space.
- In the case of an ALTER TABLE statement used to alter the length of an existing variable length column, the new length of the altered column would cause the row length of the table to exceed the page size of the table space.
- The row length in the result of a join exceeds the page size of a work file table space.
- The row length of a large sort record exceeds the page size of a work file table space. The sort record includes columns that are being sorted and columns that the user selects. The length of the columns that are being sorted is the sort key length. The length of the columns that the user selects is the sort data length.

System Action: The statement cannot be executed. The object table was not created or altered.

Programmer Response: In the case of CREATE TABLE, either (1) the row length of the table must be reduced (by eliminating or reducing the lengths of one or more of the columns), or (2) the table must be assigned to a table space that uses a larger buffer pool (assuming that the row length of the table does not exceed that page size limit).

In the case of ALTER TABLE, either (1) the length of the column to be added to the table must be reduced or, (2) if the row length of the table is already at the maximum, the table cannot be altered to add any additional columns.

In the case of a row length that exceeds the page size of a work file table space, eliminate columns from the result of the join.

In the case of a large sort record in which the row length exceeds the page size of a work file table space, eliminate columns from the SELECT list or reduce the number of columns that are being sorted.

SQLSTATE: 54010

-671 THE BUFFERPOOL ATTRIBUTE OF THE TABLE SPACE CANNOT BE ALTERED AS SPECIFIED BECAUSE IT WOULD CHANGE THE PAGE SIZE OF THE TABLE SPACE

Explanation: For example, the change to the buffer pool attribute for the table space specified in the ALTER TABLESPACE statement would change the page size of the table space—either from 4KB to 32KB, 8KB to 16KB, or vice versa.

Use of the ALTER TABLESPACE statement to change the page size of a table space is not permitted.

System Action: The statement cannot be executed. The table space definition was not altered.

Programmer Response: For example, if the table space uses one of the 4KB buffer pools (for example, BP0, BP1, or BP2), it can be reassigned to one of the other 4KB buffer pools (but not buffer pool BP32K). If, however, it is assigned to buffer pool BP32K, the buffer pool assignment cannot be subsequently altered.

SQLSTATE: 53040

-672 OPERATION DROP NOT ALLOWED ON TABLE *table_name*

Explanation: The DROP operation failed for one of the following reasons:

- The table being dropped has the RESTRICT ON DROP attribute.
- The table space or database being dropped contains the specified table, which has the RESTRICT ON DROP attribute.

System Action: The DROP statement cannot be executed.

Programmer Response: Before dropping the table, alter the table, specifying DROP RESTRICT ON DROP.

For DROP TABLESPACE or DROP DATABASE, make sure that there are no other tables within the table space or database with the RESTRICT ON DROP attribute. The following SELECT statement can identify the tables:

```
SELECT CREATOR, NAME
FROM SYSIBM.SYSTABLES
WHERE TYPE = 'T'
AND CLUSTERTYPE = 'Y'
AND DBNAME = 'database_name'
AND TSNAME = 'tablespace_name';
```

SQLSTATE: 55035

-676 ONLY A 4K PAGE BUFFERPOOL CAN BE USED FOR AN INDEX

Explanation: A buffer pool having a page size other than 4KB was specified in the CREATE INDEX statement. Only 4KB buffer pools (that is, BP0, BP1,

and BP2) can be specified for indexes.

System Action: The statement cannot be executed. The specified index was not created.

Programmer Response: Correct the statement to specify a 4KB buffer pool. Refer to Chapter 5 of *DB2 SQL Reference* for information about the syntax of SQL statements.

SQLSTATE: 53041

-677 INSUFFICIENT VIRTUAL STORAGE FOR BUFFERPOOL EXPANSION

Explanation: An attempt to either open (create) or expand a buffer pool has failed because insufficient virtual storage was available.

This error may occur under either of two circumstances:

- An attempt to create a buffer pool while opening a table space or index(space), or
- An attempt to expand a buffer pool from its current size to its maximum size.

System Action: The statement cannot be executed.

Programmer Response: If this error should occur during interactive execution of an SQL statement or execution of an application program, installation administration should be notified.

Installation Action: It may be necessary to reexamine the buffer pool storage strategy.

One of the following messages has also been sent to the MVS console: DSNB601I, DSNB603I, or DSNB605I. Refer to Part 3, "DB2 messages," on page 157 for explanations of these messages.

SQLSTATE: 57011

-678 THE LITERAL *literal* SPECIFIED FOR THE INDEX LIMIT KEY MUST CONFORM TO THE DATA TYPE *data-type* OF THE CORRESPONDING COLUMN *column-name*

Explanation: The index limit key value *literal* has been specified incorrectly in the CREATE INDEX or ALTER INDEX statement.

Limit key value specifications must conform to the data type of the corresponding index key column. In this case, *literal* must be of data type *data-type* to conform to the data type of column *&column-name*.

System Action: The statement cannot be executed. The index was not created.

Programmer Response: Correct the statement so that each limit key value *literal* is of precisely the same data type as that of the corresponding index key column.

SQLSTATE: 53045

-679 THE OBJECT *name* CANNOT BE CREATED BECAUSE A DROP IS PENDING ON THE OBJECT

Explanation: The application program has executed a DROP for the specified object, and then tried to re-create an object with the same name (and of the same type) before the DROP was completed.

System Action: The statement cannot be executed. The specified object was not created.

Programmer Response: The logic of the application program must be modified to issue a COMMIT (or the IMS or CICS equivalent) between the DROP and CREATE statements.

SQLSTATE: 57006

-680 TOO MANY COLUMNS SPECIFIED FOR A TABLE, VIEW OR TABLE FUNCTION

Explanation: The maximum number of columns permitted per table, view, or table function is 750. The statement attempted to perform one of the following actions:

- CREATE or ALTER a table to contain more than 750 columns
- CREATE a view with more than 750 columns
- CREATE a table function with more than 750 columns in the RETURNS TABLE clause

System Action: The statement cannot be executed.

Programmer Response: Change the CREATE statement to not include more than 750 columns, or do not try to alter an existing table to contain more than 750 columns.

SQLSTATE: 54011

-681 COLUMN *column-name* IN VIOLATION OF INSTALLATION DEFINED FIELD PROCEDURE. RT: *return-code*, RS: *reason-code*, MSG: *message-token*

Explanation: An installation field procedure returned an error for '*column-name*'. The '*reason-code*' and '*message-token*' are defined by the field procedure. They may give additional information to help determine the cause of the problem.

Return code

	Error
4	Invalid value on encode or decode or invalid column description on define
8	Invalid parameter value
12	Field procedure error on any function

Use '*reason-code*' and '*message-token*' for additional information.

System Action: The statement cannot be executed.

Programmer Response: If it is not a field procedure error, determine the requirements imposed by the field procedure. If it is a field procedure error, examine the field procedure.

SQLSTATE: 23507

-682 FIELD PROCEDURE *procedure-name* COULD NOT BE LOADED

Explanation: The field procedure '*procedure-name*' cannot be loaded.

System Action: The statement cannot be executed.

Programmer Response: The application should either commit or roll back to previous COMMIT. Then, in general, the application should terminate.

SQLSTATE: 57010

-683 THE SPECIFICATION FOR COLUMN, DISTINCT TYPE, FUNCTION, OR PROCEDURE *data-item* CONTAINS INCOMPATIBLE CLAUSES

Explanation: There is an error in the data item specification in a CREATE or ALTER statement. Incompatible specifications are present such as "INTEGER and FOR BIT DATA". The location of the error is given by *data-item* as follows:

- For a CREATE or ALTER TABLE statement, *data-item* gives the name of the column containing the error. The error could be an invalid specification of FOR BIT DATA, FOR SBCS DATA, FOR MIXED DATA, or FIELDPROC for column *data-item*.
- For a CREATE FUNCTION or CREATE PROCEDURE statement, *data-item* is a token that identifies the area of the problem in the statement. For example, "PARAMETER 3" or "RETURNS" or "CAST FROM".
- For a CREATE DISTINCT TYPE statement, *data-item* gives the name of the type being defined.
- *generation-alteration* cannot be specified for a column that is not defined as an identity column.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement by removing the incompatible specification.

SQLSTATE: 42842

-684 THE LENGTH OF LITERAL LIST BEGINNING *string* IS TOO LONG

Explanation: The length of the literal list beginning with '*string*', excluding insignificant blanks and delimiting parentheses is greater than 255.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement.

SQLSTATE: 54012

-685 **INVALID FIELD TYPE**, *column-name*

Explanation: The field description returned by the field procedure is invalid. The data type code denotes a long string or has an invalid value.

System Action: The statement cannot be executed.

Programmer Response: Correct the field procedure so that it returns a valid data type code.

SQLSTATE: 58002

-686 **COLUMN DEFINED WITH A FIELD PROCEDURE CAN NOT COMPARE WITH ANOTHER COLUMN WITH DIFFERENT FIELD PROCEDURE**

Explanation: The columns specified are not compatible. Different field procedures are specified, or only one field procedure is specified.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement. Refer to Chapter 2 of *DB2 SQL Reference* for comparison restrictions between columns defined with a field procedure.

SQLSTATE: 53043

-687 **FIELD TYPES INCOMPARABLE**

Explanation: One column cannot be compared with another column that has incompatible field types.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement. Refer to Chapter 2 of *DB2 SQL Reference* for comparison restrictions between columns defined with a field procedure.

SQLSTATE: 53044

-688 **INCORRECT DATA RETURNED FROM FIELD PROCEDURE**, *column-name*, *msgno*

Explanation: Unexpected data returned from field procedure for column 'column-name'. For more information see 'msgno'.

System Action: The statement cannot be executed.

Programmer Response: Correct the field procedure so that it returns values that are consistent with their descriptions.

SQLSTATE: 58002

-689 **TOO MANY COLUMNS DEFINED FOR A DEPENDENT TABLE**

Explanation: The maximum number of columns allowed for a dependent table is 749. The code is used to report that the statement is invalid because of one of the following:

- A CREATE TABLE statement is creating a dependent table with 750 columns.
- An ALTER TABLE statement is altering a dependent table with 749 columns to add a column, or altering a table with 750 columns to become a dependent table.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement to conform to the column limit for a dependent table.

SQLSTATE: 54011

-690 **THE STATEMENT IS REJECTED BY DATA DEFINITION CONTROL SUPPORT. REASON** *reason-code*

Explanation: The code is issued by the data definition control support to report that the statement is rejected for the reason indicated by 'reason-code' after consulting the application registration table and object registration table.

The explanation of the given reason code:

- 0001
Data definition control support is running under the controlling by application name mode. The statement is rejected because the current application is not registered in application registration table with DEFAULTAPPL on.
- 0002
Data definition control support is running under the controlling by application name with exceptions mode. The statement is rejected because the object is not registered in object registration table and the current application is not registered in application registration table with DEFAULTAPPL on.
- 0003
Data definition control support is running under the controlling by application name with exceptions mode. The statement is rejected because the object is registered in object registration table but the current application does not match.
- 0004
Data definition control support is running under the controlling by object name with exceptions mode. The statement is rejected because the object is registered in object registration table but the current application does not match.
- 0005
Data definition control support is running under the controlling by object name mode. The statement is

rejected because the object is registered in object registration table but the current application does not match.

- 0006

Data definition control support is running under the controlling by object name mode. The statement is rejected because the object is not registered in object registration table.

System Action: The statement cannot be executed.

Programmer Response: None if valid rejection. Otherwise, check to see if data definition control support is running under the desired mode. Check one or both registration table(s) to determine if the entries of the registration table(s) are correct. If they are not, then update the registration table(s).

SQLSTATE: 23508

-691 THE REQUIRED REGISTRATION TABLE *table-name* DOES NOT EXIST

Explanation: The data definition control support assumes the existence of the application registration table and object registration table. But either one or both tables is not defined.

System Action: The statement cannot be executed.

Programmer Response: Determine whether the required registration tables do exist. If not, create the required tables.

SQLSTATE: 57018

-692 THE REQUIRED UNIQUE INDEX *index-name* FOR DDL REGISTRATION TABLE *table-name* DOES NOT EXIST

Explanation: A unique index must be defined for each registration table. The code is issued when either the required index does not exist or the index defined is not a unique index.

System Action: The statement cannot be executed.

Programmer Response: Determine whether the required unique index does exist. If not, create the required index. If the index does exist, but is not unique, drop it and recreate it as a unique index.

SQLSTATE: 57018

-693 THE COLUMN *column-name* IN DDL REGISTRATION TABLE OR INDEX *table-name* (*index-name*) IS NOT DEFINED PROPERLY

Explanation: An error occurred during verification of the application or object registration table.

The table is improperly defined for the following reasons:

- A required column is missing.

- A column description is invalid because its name, column number, data type, length, or null attribute is incorrect.

or

The index is improperly defined for the following reasons:

- A required key column is missing.
- A key column description is invalid because of its key sequence or because its ordering is incorrect.
- A defined key column should not be part of the unique key.

System Action: The statement cannot be executed.

Programmer Response: Correct or alter the definition of the required registration table or index.

SQLSTATE: 55003

-694 THE DDL STATEMENT CANNOT BE EXECUTED BECAUSE A DROP IS PENDING ON THE DDL REGISTRATION TABLE *table-name*

Explanation: An error occurred while accessing the application registration table or object registration table. The application registration table or object registration table was dropped, but the DROP statement was not committed.

System Action: The statement cannot be executed.

Programmer Response: Resubmit the job. If the same error happens, check for the application that issued the DROP statement for the application registration table or the object registration table. Either commit the DROP statement which dropped the table and create a new application registration table or object registration table, or issue a ROLLBACK for the DROP statement to put the tables back.

SQLSTATE: 57023

-695 INVALID VALUE *seclabel* SPECIFIED FOR SECURITY LABEL COLUMN OF TABLE *table-name*

Explanation: For an INSERT or an UPDATE to table *table-name*, the value that was specified for the security label was invalid.

System Action: The INSERT or UPDATE cannot be performed.

Programmer Response: Ensure that the value that is specified for the security label column is a valid security label. Alternatively, insert the row that specifies DEFAULT for the security label column, or remove the security label column from the insert column list.

SQLSTATE: 23523

-696 THE DEFINITION OF TRIGGER *trigger-name* INCLUDES AN INVALID USE OF CORRELATION NAME OR TRANSITION TABLE NAME *name*. REASON CODE=*reason-code*

Explanation: The trigger definition included an invalid use of *name*

trigger-name

The trigger that encountered the error

name The transition variable correlation name or transition table name

reason-code

A reason-code indicating the specific problem as follows:

1. NEW correlation name and NEW_TABLE name are not allowed in a DELETE trigger.
2. OLD correlation name and OLD_TABLE name are not allowed in an INSERT trigger.
3. OLD_TABLE name and NEW_TABLE name are not allowed in a BEFORE trigger.

System Action: The statement cannot be executed. The trigger was not created.

Programmer Response: Remove the invalid correlation name or transition table name along with the preceding keyword.

SQLSTATE: 42898

-697 OLD OR NEW CORRELATION NAMES ARE NOT ALLOWED IN A TRIGGER DEFINED WITH THE FOR EACH STATEMENT CLAUSE. OLD_TABLE OR NEW_TABLE NAMES ARE NOT ALLOWED IN A TRIGGER WITH THE BEFORE CLAUSE.

Explanation: The trigger, as defined, includes a REFERENCING clause with one of the following invalid combinations:

- OLD or NEW correlation names specified (or both) and the FOR EACH STATEMENT clause.
- NEW_TABLE or OLD_TABLE correlation names specified (or both) and the BEFORE clause.

System Action: The statement cannot be executed. The trigger was not defined.

Programmer Response: Remove invalid correlation names or change the trigger granularity to FOR EACH ROW.

SQLSTATE: 42899

-713 THE REPLACEMENT VALUE *value* FOR *special-register* IS INVALID

Explanation: The *value* specified in the SET special-register statement is not a valid value of the indicated special register.

System Action: The statement cannot be executed.

Programmer Response: Correct the replacement value. See *DB2 SQL Reference* for an explanation of the valid values of each special register.

SQLSTATE: 42815

-715 PROGRAM *program-name* WITH MARK *release-dependency-mark* FAILED BECAUSE IT DEPENDS ON FUNCTIONS OF THE RELEASE FROM WHICH FALLBACK HAS OCCURRED

Explanation: Program '*program-name*' depends on a function of DB2 that is not supported by the current active release.

program-name

Name of the application program.

release-dependency-mark

A 1-character mark showing the oldest DB2 release supporting this program.

System Action: The BIND operation for this plan or package is not performed.

User Response: The program cannot be used until the DB2 subsystem is remigrated to the newer release.

Operator Response: Notify the system programmer.

System Programmer Response: Warn users not to use plans or packages containing this program until the DB2 subsystem has been remigrated to the newer release.

SQLSTATE: 56064

-716 PROGRAM *program-name* PRECOMPILED WITH INCORRECT LEVEL FOR THIS RELEASE

Explanation: Program '*program-name*' was precompiled under a release not supported by the current level of DB2, or the contents of the DBRM have been modified after the precompilation phase.

User Response: Precompile the named program again using the current precompiler. Reissue the BIND subcommand.

Problem Determination: If the program was precompiled at an appropriate release, and the problem persists, collect the following:

- A hexadecimal print of the first record of the failing DBRM

- The listing from the precompile job that generated the DBRM
- Output from the BIND attempt.

SQLSTATE: 56065

-717 *bind-type* **FOR** *object-type* *object-name*
WITH MARK *release-dependency-mark*
FAILED BECAUSE *object-type*
DEPENDS ON FUNCTIONS OF THE
RELEASE FROM WHICH FALLBACK
HAS OCCURRED

Explanation: The plan or package indicated depends on a function of DB2 which is not supported by the currently active release.

bind-type
 REBIND

object-type
 PLAN | PACKAGE

object-name
 Name of the application plan, or the package

release-dependency-mark
 A one-character mark showing the oldest release of DB2 can support this plan or package. The release dependency mark for the plan is kept in the IBMREQD columns in the DB2 catalog in SYSIBM.SYSPLAN (plans), SYSIBM.SYSPACKAGE(packages).

System Action: The REBIND operation for this plan or package is not performed.

User Response: The plan or package cannot be used until the DB2 subsystem is remigrated to the newer release.

Operator Response: Notify the system programmer.

System Programmer Response: Warn users not to use the plan or package until the DB2 subsystem has been remigrated to the newer release.

SQLSTATE: 56066

-718 **REBIND OF PACKAGE** *package-name*
FAILED BECAUSE IBMREQD OF
ibmreqd **IS INVALID**

Explanation: The IBMREQD column of the SYSIBM.SYSPACKAGE catalog table for the named package contains an unrecognizable character.

package-name
 Name of the package
 (location.collection.package.version)

System Action: The REBIND failed.

User Response: You must do a BIND ACTION(REPLACE) for this package.

SQLSTATE: 56067

-719 **BIND ADD ERROR USING** *auth-id*
AUTHORITY PACKAGE *package-name*
ALREADY EXISTS

Explanation: An attempt is made to add a package that already exists. The combination of 'location.collection.package.version' must be unique in the SYSIBM.SYSPACKAGE table. In addition, the combination of 'location.collection.package.consistency-token' must be unique.

auth-id Authorization ID of the invoker of the BIND subcommand.

package-name
 Name of the package
 (location.collection.package.version).

System Action: No package is created.

System Programmer Response: Check the SYSIBM.SYSPACKAGE catalog table for names of existing application packages. Re-invoke the BIND subcommand with a 'location.collection.package.version' that is not in use.

SQLSTATE: 42710

-720 **BIND ERROR, ATTEMPTING TO**
REPLACE PACKAGE = *package_name*
WITH VERSION = *version2* **BUT THIS**
VERSION ALREADY EXISTS

Explanation: An attempt is made to create a version of a package that already exists. The version specified in the REPLVER keyword is different from the version specified for the precompile. The version specified for the precompile already exists in the catalog. The combination of 'location.collection.package.version' must be unique in the SYSIBM.SYSPACKAGE catalog table. A common mistake is that the user may believe that the version he is creating is the one specified in the REPLVER keyword. This is not the case. The version specified in the REPLVER keyword is the name of the version being replaced. The version that will be created is the version that was given to the program when it was precompiled.

package_name
 Fully qualified package name

version2
 Version-id of package that is to be created

System Action: The bind will fail.

System Programmer Response: There are two approaches to solve this problem. The first is to precompile the program again with a new version name and reissue the original BIND subcommand. The other approach is not to do the precompile but reissue the BIND subcommand with REPLVER(SAME).

SQLSTATE: 42710

**-721 BIND ERROR FOR PACKAGE = *pkg-id*
CONTOKEN = *contoken*'X IS NOT
UNIQUE SO IT CANNOT BE CREATED**

Explanation: An attempt is made to add or replace a package with a consistency token that is not unique for that package. In other words, the combination of *location.collection.package.consistency-token* already exists.

pkg-id Fully qualified name of the package.

contoken

Consistency token in hexadecimal.

System Action: The BIND will fail.

System Programmer Response: Check the SYSIBM.SYSPACKAGE catalog table for names of existing application packages with the indicated consistency token. Reissue the BIND subcommand such that the *location.collection.package.consistency-token* is unique within the catalog. The following SQL statement can be used to query the catalog:

```
SELECT COLLID,NAME
FROM loc-id.SYSIBM.SYSPACKAGE
WHERE HEX(CONTOKEN) = contoken
```

SQLSTATE: 42710

**-722 *bind-type* ERROR USING *auth-id*
AUTHORITY PACKAGE *package-name*
DOES NOT EXIST**

Explanation: The indicated subcommand was issued against a package that does not exist. The individual variable fields contain:

bind-type

Type of bind subcommand (BIND | REBIND | FREE).

auth-id Authorization ID of the invoker of the BIND subcommand.

package-name

Name of the package
(*location.collection.package.version*)

System Action: Package not rebound or freed.

System Programmer Response: Check the SYSPACKAGE catalog table for the correct '*location.collection.package.version*' to use.

SQLSTATE: 42704

**-723 AN ERROR OCCURRED IN A
TRIGGERED SQL STATEMENT IN
trigger-name. INFORMATION
RETURNED: *sqlerror*,
SQLSTATE: *sqlstate*, MESSAGE
TOKENS *token-list*, SECTION NUMBER
*section-number***

Explanation: During execution of an UPDATE, INSERT, or DELETE statement, a trigger was activated. One of the triggered SQL statements received an SQL error condition.

trigger-name

The trigger that was activated when the error occurred.

section-number

The section number associated with the failing triggered SQL statement. For triggers that contain a WHEN clause, the WHEN clause is section number one. The triggered SQL statements are numbered sequentially, beginning with section number two. This is true for triggers with or without a WHEN clause.

sqlcode

The SQLCODE received by the activated trigger.

sqlstate

The corresponding SQLSTATE for the SQLCODE received by the activated trigger.

token-list

The list of tokens from the original SQL error. This list might be truncated.

System Action: The trigger and the original INSERT, UPDATE, or DELETE statement cannot be processed. The triggering table is unchanged.

Programmer Response: Contact your Database Administrator to determine why the trigger named in the message received the error.

System Programmer Response: Use the trigger name and section number to determine the failing SQL statement. If the trigger definition is available, use the section number to determine the failing statement. Alternatively, the failing statement can be retrieved from the SYSIBM.SYSPACKSTMT catalog table: SELECT TEXT, SEQNO FROM SYSIBM.SYSPACKSTMT WHERE COLLID = 'schema-name' AND NAME = 'trigger-name' AND SECTNO = section-number ORDER BY SEQNO Refer to the explanation of the reported SQLCODE. Follow the action suggested by that SQLCODE.

SQLSTATE: 09000

-724 THE ACTIVATION OF THE *object-type* OBJECT *object-name* WOULD EXCEED THE MAXIMUM LEVEL OF INDIRECT SQL CASCADING

Explanation: Cascading of indirect SQL occurs when a trigger, user-defined function or stored procedure invokes another trigger, user-defined function or stored procedure which in turn invokes another. The activation of some of the triggers in this chain might be due to the enforcement of referential constraint delete rules. The depth of this cascading is limited to 16.

Note that recursive situations where a trigger includes a triggered SQL statement that directly or indirectly causes the same trigger to be activated are very likely to cause this error. The trigger should contain logic to check for a terminating condition to prevent this error.

object-type

Names the type of object being called. Object type is TRIGGER, FUNCTION, or PROCEDURE.

object-name

Specifies the name of the trigger, user-defined function or stored procedure that would have been activated at the seventeenth level of cascading.

System Action: The original statement could not be executed. All SQL statements executed by all triggers, user-defined functions, and stored procedures in the cascade chain are rolled back. External actions performed by the indirect SQL, such as sending a network message might have already occurred.

Programmer Response: Start with the indirect SQL that is activated by the original SQL operation. Check for recursive patterns in any invoked user-defined functions or in any triggers defined on the subject of an update operation. If the chain is not recursive, the cascade chain must be simplified by altering the triggers, user-defined functions, or stored procedures involved.

SQLSTATE: 54038

-725 THE SPECIAL REGISTER *register* AT LOCATION *location* WAS SUPPLIED AN INVALID VALUE

Explanation: DB2 received a SET statement with an invalid value. Valid SETs might be allowed or retained. Further processing stops at the named site until the SET statement is corrected.

System Action: All SQL statements at the named remote site are rejected until the SET statement that was in error is corrected.

Programmer Response: The SET statement should be reissued with a valid value. This situation can be corrected with a local SET statement or with a DRDA SET statement executed at the remote site. Once the

special register has been supplied a valid value, the application can resume execution.

SQLSTATE: 42721

-726 BIND ERROR ATTEMPTING TO REPLACE PACKAGE = *package-name*. THERE ARE ENABLE OR DISABLE ENTRIES CURRENTLY ASSOCIATED WITH THE PACKAGE

Explanation: The BIND subcommand was issued to replace a package that has ENABLE or DISABLE entries currently associated with the package.

System Action: Package not bound.

System Programmer Response: FREE the package first and then BIND the package.

SQLSTATE: 55030

-728 DATA TYPE *data-type* IS NOT ALLOWED IN DB2 PRIVATE PROTOCOL PROCESSING

Explanation: An SQL statement uses a data type that cannot be used with DB2 private protocol. Data types such as LOBs (large objects), row IDs and user defined types cannot be accessed using DB2 private protocol.

System Action: The statement cannot be executed.

Programmer Response: If this is an invalid data type, correct the statement. If this is a valid (but disallowed) data type, you can:

- Remove access to the data type listed, and re-execute the statement.
- Change the application program so that DRDA is used to access the data.
- BIND the package containing the statement to the remote site with bind option DBPROTOCOL(DRDA) and rerun the program.

Refer to the *DB2 SQL Reference* for more information.

SQLSTATE: 56080

-729 A STORED PROCEDURE SPECIFYING COMMIT ON RETURN CANNOT BE THE TARGET OF A NESTED CALL STATEMENT

Explanation: A stored procedure defined with the COMMIT ON RETURN attribute was called from a stored procedure, user-defined function, or trigger. Stored procedures defined with COMMIT ON RETURN cannot be nested in this way.

System Action: The SQL statement is not executed. If the CALL statement references a remote server, the unit of work is placed in a must rollback state.

Programmer Response: Remove the CALL to the

stored procedure that was defined with the COMMIT ON RETURN attribute.

SQLSTATE: 429B1

-730 THE PARENT OF A TABLE IN A READ-ONLY SHARED DATABASE MUST ALSO BE A TABLE IN A READ-ONLY SHARED DATABASE

Explanation: An attempt was made to define a relationship between a table in a read-only shared database and a table that is not.

System Action: The statement cannot be executed.

Programmer Response: Insure that the correct tables are being used for the relationship being defined.

SQLSTATE: 56053

-731 USER-DEFINED DATASET *dsname* MUST BE DEFINED WITH SHAREOPTIONS(1,3)

Explanation: The VSAM SHAREOPTIONS must be (1,3) for all of the indexes and table spaces in the database. The user-defined data set identified did not meet this requirement.

System Action: The statement cannot be executed.

Programmer Response: Insure that the data sets used in the shared database are defined with the proper SHAREOPTIONS.

SQLSTATE: 56054

-732 THE DATABASE IS DEFINED ON THIS SUBSYSTEM WITH THE ROSHARE READ ATTRIBUTE BUT THE TABLE SPACE OR INDEX SPACE HAS NOT BEEN DEFINED ON THE OWNING SUBSYSTEM

Explanation: Prior to creating a table space or index in a database with the ROSHARE READ attribute, that object must first be defined on the owning subsystem.

System Action: The statement cannot be executed.

Programmer Response: Verify that the table space or index has been defined on the owning system in a ROSHARE OWNER database.

SQLSTATE: 56055

-733 THE DESCRIPTION OF A TABLE SPACE, INDEX SPACE, OR TABLE IN A ROSHARE READ DATABASE MUST BE CONSISTENT WITH ITS DESCRIPTION IN THE OWNER SYSTEM

Explanation: This code is issued while creating a table space, index, or table in the ROSHARE READ

database. These objects must be consistent with their descriptions in the ROSHARE OWNER database as follows:

- For a table space, the following attributes must be the same:
 - Page size
 - Segment size
 - Number of partitions
- For an index, the following attributes must be the same:
 - Number of partitions
 - Number of subpages
 - Table OBID
 - Total key length
 - Index type (Type 1 or Type 2 Index)
 - Number of key columns
- For a table, the following attributes must be the same:
 - Table OBID
 - Maximum record length
 - Number of columns
 - Whether an edit procedure exists

System Action: The statement cannot be executed.

Programmer Response: Ensure that the definition of the table space, index, or table is consistent with that in the ROSHARE OWNER database.

SQLSTATE: 56056

-734 THE ROSHARE ATTRIBUTE OF A DATABASE CANNOT BE ALTERED FROM ROSHARE READ

Explanation: An attempt was made to ALTER a database from ROSHARE READ to either ROSHARE OWNER or ROSHARE NONE.

System Action: The statement cannot be executed.

Programmer Response: Verify that the correct database was specified on the ALTER DATABASE statement. The ROSHARE attribute of a read-only shared database cannot be altered. To change this, DROP and recreate the database.

SQLSTATE: 56057

-735 DATABASE *dbid* CANNOT BE ACCESSED BECAUSE IT IS NO LONGER A SHARED DATABASE

Explanation: An attempt was made to access an object in the database identified by *dbid*, that is known to the system as having the ROSHARE READ attribute. The database, however, is no longer defined as ROSHARE OWNER on the owning subsystem.

System Action: The statement cannot be processed.

Programmer Response: Verify that the correct object is specified on the statement.

SQLSTATE: 55004

-736 INVALID OBID *obid* SPECIFIED

Explanation: An invalid OBID value was given on the CREATE statement. The OBID is invalid for one of the following reasons:

- The specified OBID does not fall within the acceptable range for OBIDs, which is 1 to 32767.
- The specified OBID is already in use for the given database.

System Action: The statement cannot be executed.

Programmer Response: Verify that the given OBID is a valid value for an OBID. If so, ensure that the OBID is correct for the object to be created, then query the catalog to find the object that is already defined as having the same OBID in the database. If an invalid OBID was given for the object to be created, correct the statement and execute it again. If the existing object is in error, then DROP and CREATE that object using the correct OBID value.

It is possible that the OBID “in use” is the OBID for an object that had been previously dropped. If that is the case, and the CREATE was issued for a table in a non-ROSHARE READ database, then select a different OBID for use in the OBID clause. If the object had been previously dropped and the CREATE was issued for a table in a ROSHARE READ database, COMMIT and re-submit the CREATE TABLE request.

SQLSTATE: 53014

-737 IMPLICIT TABLE SPACE NOT ALLOWED

Explanation: A CREATE TABLE statement was issued using an implicit table space. An implicit table space may not be used in a database that has been defined as a read-only shared database.

System Action: The statement cannot be executed.

Programmer Response: CREATE a table space for the table, using the same name as is given on the owning system. Then resubmit the CREATE TABLE statement.

SQLSTATE: 56056

-739 CREATE OR ALTER FUNCTION *function-name* FAILED BECAUSE FUNCTIONS CANNOT MODIFY DATA WHEN THEY ARE PROCESSED IN PARALLEL.

Explanation: The function cannot be created or altered because ALLOW PARALLEL and MODIFIES SQL DATA were both specified explicitly or implicitly. A function cannot be parallelized if it modifies data.

System Action: The statement cannot be processed.

Programmer Response: Specify DISALLOW PARALLEL or change the MODIFIES SQL DATA to NO SQL, CONTAINS SQL or READS SQL DATA.

SQLSTATE: 56088

-740 FUNCTION *name* IS DEFINED WITH THE OPTION MODIFIES SQL DATA WHICH IS NOT VALID IN THE CONTEXT IN WHICH IT WAS INVOKED

Explanation: A user-defined function defined with MODIFIES SQL DATA is only allowed in:

- VALUES clause of an INSERT statement
- SET clause of an UPDATE statement
- VALUES statement in a trigger
- SET Assignment statement
- CALL procedure statement

System Action: The SQL statement failed.

Programmer Response: Remove the user-defined function from the failing statement. or remove the MODIFIES SQL DATA option from the definition of the function.

SQLSTATE: 51034

-741 A *database-type* DATABASE IS ALREADY DEFINED FOR MEMBER *member-name*

Explanation: A CREATE DATABASE statement was issued for a WORK FILE or TEMP database, but the database can not be created because one is already defined for the named DB2 subsystem or data sharing group member.

database-type
WORK FILE or TEMP

member-name
Name of the DB2 subsystem or data sharing group member that already has a *database-type* database.

System Action: The statement cannot be executed.

Programmer Response: Verify the identity and validity of the existing *database-type* database for the named DB2 subsystem or data sharing member. The existing database can be altered or dropped if necessary. If the existing database is dropped, resubmit the CREATE DATABASE statement.

SQLSTATE: 55020

-742 DSNDB07 IS THE IMPLICIT WORK FILE DATABASE

Explanation: The WORKFILE clause cannot be used on a CREATE DATABASE statement to create a work file database for a DB2 subsystem that is not a member of a DB2 data sharing group. The system database,

DSNDB07, is the implicit work file database.

System Action: The statement cannot be executed.

Programmer Response: To create the work file database for a DB2 subsystem that is not a member of a DB2 data sharing group, create database DSNDB07 without the WORKFILE clause.

SQLSTATE: 53004

-746 THE SQL STATEMENT IN AN EXTERNAL FUNCTION, TRIGGER, OR IN STORED PROCEDURE *name* VIOLATES THE NESTING SQL RESTRICTION

Explanation: If a table is being modified (by INSERT, DELETE or UPDATE), the table can not be accessed by the lower level nesting SQL statement.

If any table is being accessed by a SELECT statement, no table can be modified (by INSERT, DELETE or UPDATE) in any lower level nesting SQL statement.

System Action: The SELECT, INSERT, DELETE or UPDATE SQL statement failed.

Programmer Response: Remove the failing statement from the named external function, trigger or the stored procedure.

SQLSTATE: 57053

-747 TABLE *table-name* IS NOT AVAILABLE UNTIL THE AUXILIARY TABLES AND INDEXES FOR ITS EXTERNALLY STORED COLUMNS HAVE BEEN CREATED

Explanation: An attempt was made to access or reference a table with one or more LOB columns, however either

- an auxiliary table for storing one of the LOB columns has not been created, or
- an index has not been created for an auxiliary table, or
- there is not an auxiliary table for each partition of the table space.

System Action: The statement was not executed.

Programmer Response:

1. Use CREATE TABLESPACE to create a LOB table space.
2. Use CREATE TABLE to create the auxiliary table for storing the column.
3. Use CREATE INDEX to create an index on the auxiliary table.
4. Resubmit the statement that failed.

SQLSTATE: 57054

-748 AN INDEX ALREADY EXISTS ON AUXILIARY TABLE *table-name*

Explanation: The CREATE INDEX statement would create a second index on the specified auxiliary table. An auxiliary table can have only one index.

System Action: The statement cannot be executed.

Programmer Response: An index already exists. Another index cannot be created.

SQLSTATE: 54042

-750 THE SOURCE TABLE *source-name* CANNOT BE RENAMED BECAUSE IT IS REFERENCED IN EXISTING VIEW, MATERIALIZED QUERY TABLE, OR TRIGGER DEFINITIONS

Explanation: The *source table* in a RENAME statement cannot be renamed because it is referenced in one or more existing triggers:

- It is referenced in one or more materialized query table definitions
- It is referenced as the triggering table in one or more existing triggers.

System Action: The statement cannot be executed.

Programmer Response: Change the source name to the name of an object that can be renamed and reissue the statement. Drop any triggers defined on the table before issuing the RENAME statement. These can be found by querying the system catalog: SELECT * FROM SYSIBM.SYSTRIGGERS WHERE TBNAME = 'source-name'

SQLSTATE: 42986

-751 *object-type object-name* (SPECIFIC NAME *specific name*) ATTEMPTED TO EXECUTE AN SQL STATEMENT *statement* THAT IS NOT ALLOWED

Explanation: A stored procedure or user-defined function attempted to execute an SQL statement that is not allowed.

Stored procedure

A stored procedure issued an SQL statement that forced the DB2 thread to roll back the unit of work. The SQL statement that caused the thread to be placed in the MUST_ROLLBACK state is one of the following:

COMMIT
ROLLBACK

All further SQL statements are rejected until the SQL application that issued the SQL CALL statement rolls back the unit of work. When control returns to the SQL application that issued the SQL CALL statement, the SQL application must roll back the unit of work. This

can be done by issuing an SQL ROLLBACK statement or the equivalent IMS or CICS operation.

User-defined function

External function *object-name* issued one of the following SQL statements:

- COMMIT
- ROLLBACK

System Action: The statement cannot be executed.

Programmer Response: Remove the unsupported statement from your stored procedure or user-defined function.

Remotely called stored procedures cannot execute embedded SQL Commit and/or Rollback statements unless:

- The connection with the requester system uses one phase commit protocols
- The requester system indicates that commits are allowed (via sending a DRDA RDBCMTOK=TRUE indication) when the stored procedure is called.

Note: For DB2 Connect requester systems, this requires that the client application must use Connect Type 1, or Remote Unit of Work connections. Connect Type 2 or Distributed Unit of Work connections will cause DB2 Connect to indicate that commits are not allowed, thus embedded SQL Commit and/or Rollback statements in a stored procedure will fail.

Any Commit or Rollback statements in the stored procedure must be removed, or the client application should be modified to establish an environment that allows the stored procedure to execute SQL Commit and/or Rollback statements.

SQLSTATE: 38003

-752 THE CONNECT STATEMENT IS INVALID BECAUSE THE PROCESS IS NOT IN THE CONNECTABLE STATE

Explanation: The application process attempted to execute a CONNECT statement while in the unconnectable state. See the description of the CONNECT statement in the *DB2 SQL Reference* for an explanation of connection states.

System Action: The statement cannot be executed. The connection state of the application process is unchanged.

Programmer Response: Modify the application program to execute a commit or rollback operation prior to executing the CONNECT statement.

SQLSTATE: 0A001

-763 INVALID TABLE SPACE NAME
table-space-name

Explanation: The named table space is invalid for one of the following reasons:

- It is a LOB table space and therefore cannot reside in a work file database.
- It is a LOB table space and therefore cannot contain a non-auxiliary table.
- It is not a LOB table space and therefore cannot contain an auxiliary table.

System Action: The statement cannot be executed.

Programmer Response: Either

- Create the LOB table space in a non-workfile database.
- Create the table in a non-LOB table space.
- Create the auxiliary table in a LOB table space.

SQLSTATE: 560A1

-764 A LOB TABLE SPACE AND ITS ASSOCIATED BASE TABLE SPACE MUST BE IN THE SAME DATABASE

Explanation: An attempt was made to create an auxiliary table in a LOB table space that is not in the same database as the associated base table space.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement to specify a LOB table space in the same database as the associated base table space.

SQLSTATE: 560A2

-765 TABLE IS NOT COMPATIBLE WITH DATABASE

Explanation: A CREATE TABLE or ALTER TABLE statement defines a LOB column in a table whose database attribute is ROSHARE OWNER or ROSHARE READ. This is not permitted.

System Action: The statement is not executed.

Programmer Response: If CREATE TABLE, either assign the table to an ROSHARE NONE database or create the table without a LOB column. If ALTER TABLE, redefine the column as a non-LOB column or move the table to an ROSHARE NONE database.

SQLSTATE: 560A3

-766 THE OBJECT OF A STATEMENT IS AN AUXILIARY TABLE FOR WHICH THE REQUESTED OPERATION IS NOT PERMITTED

Explanation: An auxiliary table was named in one of the following statements:

- ALTER TABLE
- CREATE ALIAS

- CREATE FUNCTION
- CREATE SYNONYM
- CREATE VIEW
- DELETE
- DESCRIBE TABLE
- INSERT
- SELECT
- UPDATE

There are no attributes of an auxiliary table that can be altered.

Aliases and synonyms cannot be created on an auxiliary table.

Data in an auxiliary table cannot be accessed by specifying the auxiliary table name in the SELECT, INSERT, DELETE, UPDATE, CREATE PROCEDURE, or CREATE FUNCTION statement. Data in an auxiliary table can only be accessed through operations on the base table columns.

Additionally, do not specify CLUSTER on ALTER TABLE if the table is an auxiliary table.

System Action: The statement cannot be executed.

Programmer Response: Correct the statement to specify the corresponding base table instead of the auxiliary table and resubmit the statement.

SQLSTATE: 560A4

-767 MISSING OR INVALID COLUMN SPECIFICATION FOR INDEX
index-name

Explanation: The CREATE INDEX statement failed for one of the following reasons:

- An index on a non-auxiliary table must specify the columns on which the index is defined.
- An index on an auxiliary table must not have a column specification.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax of the CREATE INDEX statement.

- To create an index on a non-auxiliary table, specify the columns on which the index is defined.
- To create an index on an auxiliary table, do not specify the name of any column.

SQLSTATE: 42626

-768 AN AUXILIARY TABLE ALREADY EXISTS FOR THE SPECIFIED COLUMN OR PARTITION

Explanation: An attempt was made to create an auxiliary table, but an auxiliary table for the specified column or partition already exists. When the base table

belongs to a non-partitioned table space, there can be only one auxiliary table per LOB column of the table. When the base table belongs to a partitioned table space, for any given LOB column, all values of the LOB column for a given partition are stored in their own auxiliary table. There must be one auxiliary table per partition of the base table space.

System Action: The statement is not executed.

Programmer Response: Check that the correct table name, column name, and if applicable, partition number have been specified. If a different name is desired for the existing auxiliary table, the RENAME TABLE statement can be used to rename the auxiliary table.

SQLSTATE: 560A5

-769 SPECIFICATION OF CREATE AUX TABLE DOES NOT MATCH THE CHARACTERISTICS OF THE BASE TABLE

Explanation: Either an attempt was made to create an auxiliary table

- using the PART clause and the specified base table is not partitioned or
- without using the PART clause and the specified base table is partitioned

If the base table is not partitioned, then the PART keyword is not allowed on the CREATE AUXILIARY TABLE statement. If the base table is partitioned, then the PART keyword must be specified.

System Action: The auxiliary table was not created.

Programmer Response: Check whether the name of the base table specified in the CREATE AUXILIARY TABLE statement is correct. If it is correct and the table is not partitioned, remove the PART clause from the statement. If it is correct and the table is partitioned, add the PART clause to the statement. If the table name is not correct, correct the name and also check that the correct column name is specified.

SQLSTATE: 53096

-770 TABLE *table-name* CANNOT HAVE A LOB COLUMN UNLESS IT ALSO HAS A ROWID COLUMN

Explanation: An attempt was made to create a table with a LOB column or to add a LOB column to a table, but the table does not have a ROWID column. A table with a LOB column must also have a ROWID column.

System Action: The statement was not executed.

Programmer Response: If creating a table with a LOB column, define a column with type ROWID in the same table. If using ALTER to add a LOB column to a table, first use ALTER to add a column with type ROWID to the table.

SQLSTATE: 560A6

-771 **INVALID SPECIFICATION OF A ROWID COLUMN**

Explanation: For an ALTER or CREATE TABLE statement, the specification of a ROWID column might be invalid for one of the following reasons:

- A ROWID column cannot be added to a temporary table.
- The *referential-constraint* clause cannot specify a ROWID column as a column of a foreign key.
- A ROWID column cannot be a column of a primary key or unique key.
- A ROWID column cannot be a column in a table with an EDITPROC.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax and resubmit the statement.

SQLSTATE: 428C7

-797 **ATTEMPT to CREATE TRIGGER *trigger-name* WITH AN UNSUPPORTED TRIGGERED SQL STATEMENT**

Explanation: The trigger definition includes an unsupported triggered SQL statement. The SQL statements allowed as a triggered SQL statement depend on the type of trigger:

- A BEFORE trigger can include the following triggered SQL statements:
 - a fullselect or VALUES statement
 - a SET transition-variable statement (not allowed in a BEFORE DELETE trigger)
 - a SIGNAL SQLSTATE statement
 - a CALL statement
- An AFTER trigger can include the following triggered SQL statements:
 - a fullselect or VALUES statement
 - an INSERT statement
 - a searched UPDATE statement
 - a searched DELETE statement
 - a SIGNAL SQLSTATE statement
 - a CALL statement

System Action: The CREATE TRIGGER statement cannot be executed, and the trigger is not created.

Programmer Response: Check the triggered SQL statements in the trigger for any statement that is not listed above and remove it.

SQLSTATE: 42987

-798 **YOU CANNOT INSERT A VALUE INTO A COLUMN THAT IS DEFINED WITH THE OPTION GENERATED ALWAYS COLUMN *column-name***

Explanation: When inserting into a table, a value was specified for column *column-name* with the GENERATE ALWAYS attribute. GENERATED ALWAYS columns should not be specified in the column-list for an insertion unless the corresponding entry in the VALUES list is DEFAULT.

System Action: The INSERT is not performed.

Programmer Response: Remove the column from the column-list or specify DEFAULT for the GENERATED ALWAYS column in the VALUES clause.

You may also use the OVERRIDING clause as a possible solution for this situation. See INSERT in DB2 SQL Reference for more information about the OVERRIDING USER VALUE clause.

SQLSTATE: 428C9

-802 **EXCEPTION ERROR *exception-type* HAS OCCURRED DURING *operation-type* OPERATION ON *data-type* DATA, POSITION *position-number***

Explanation: An exception error has occurred in the processing of an SQL arithmetic function or arithmetic expression. This error may be indicated by *exception-type*. Possible values for *exception-type* are FIXED POINT OVERFLOW, DECIMAL OVERFLOW, ZERO DIVIDE, DIVIDE EXCEPTION, EXPONENT OVERFLOW, or OUT OF RANGE. The exception error occurred in one of the following areas:

- In the SELECT list of an SQL SELECT statement.
- In the search condition of a SELECT, UPDATE, or DELETE statement.
- In the SET clause of the UPDATE statement.
- Found during the evaluation of an aggregate function.

Data-type may indicate the data types of the items being manipulated. Possible values for *data-type* are INTEGER, SMALLINT, DECIMAL, and FLOAT. The data type displayed in the message may indicate the data type of the temporary internal copy of the data, which may differ from the actual column or literal data type due to conversions by DB2.

Operation-type may indicate the arithmetic operation that was being performed at the time of the error. The possible operation-types are ADDITION, SUBTRACTION, MULTIPLICATION, DIVISION, NEGATION, BUILT-IN FUNCTION, AGGREGATE FUNCTION, and JAVA CONVERSION.

Position-number may indicate the position of the expression in a SELECT list if the error was in the SELECT list of an outer SELECT statement

Note: Parts of *exception-type*, *data-type*, *operation-type*, and/or *position-number* may not be returned to the SQL communication area, depending on where the error was detected.

System Action: The statement cannot be executed. In the case of an INSERT or UPDATE statement, no data is updated or deleted. If the statement was a cursor-controlled FETCH, then the CURSOR will remain open unless the exception occurred while processing an aggregate function (indicated by *operation-type* of AGGREGATE FUNCTION), in which case the CURSOR will be closed. If the CURSOR is closed, subsequent attempts to use that cursor without first doing an OPEN for it receive an SQLCODE -501. If the statement was a cursor-controlled OPEN then the CURSOR will remain closed.

Programmer Response: Examine the SQL statement to see if the cause of the problem can be determined. The problem may be data-dependent, in which case it will be necessary to examine the data that was being processed at the time the error occurred.

If the arithmetic expression in error was within the SELECT list of the outer SELECT statement, then it is advisable to include an indicator variable for all expressions in the SELECT list. This allows processing to continue so that non-error column and expression values can be returned.

See the explanation of SQLCODE -405 for allowed ranges of numeric data types.

Problem Determination: A fixed point overflow can occur during any arithmetic operation on either INTEGER or SMALLINT fields.

A divide exception can occur on a decimal division operation when the quotient exceeds the specified data field size. A zero divide occurs on a division by zero.

An exponent overflow can occur when the result characteristic of any floating-point operation exceeds 127 and the result fraction is not zero, for example, the magnitude of the result exceeds approximately 7.2E+75.

A decimal overflow exception can occur under either of the following circumstances:

- One or more non-zero digits are lost because the destination field in any decimal operation is too short to contain the result.
- A Java stored procedure or user-defined function sets a decimal value in an output parameter that has a precision or scale too small for the value. *operation-type* is JAVA CONVERSION. *data-type* is DECIMAL. *position-number* indicates which parameter of the CALL statement or user-defined function invocation is in error.

Any of the exceptions/overflows can occur during the processing of a Built-In Function. If the *operation-type* is FUNCTION, then the error occurred while processing either an input, intermediate, or final value. The exception may occur because the value of a parameter is out of range.

SQLSTATE: 22012 if ZERO DIVIDE.

22003 if other than ZERO DIVIDE.

-803 AN INSERTED OR UPDATED VALUE IS INVALID BECAUSE THE INDEX IN INDEX SPACE *indexspace-name* CONSTRAINS COLUMNS OF THE TABLE SO NO TWO ROWS CAN CONTAIN DUPLICATE VALUES IN THOSE COLUMNS. RID OF EXISTING ROW IS *Xrid*

Explanation: The table that is the object of the INSERT or UPDATE operation is constrained (by UNIQUE INDEX in the INDEX SPACE *indexspace-name* to have unique values in certain columns. Completion of the requested INSERT or UPDATE would result in duplicate values occurring in row *rid*.

If a view is the object of the INSERT or UPDATE statement, the table that defines the view is constrained. The update might also be caused by a DELETE operation of a parent row that cascades to a dependent row with a delete rule of SET NULL.

System Action: The INSERT, UPDATE, or DELETE statement cannot be executed. The object table is unchanged.

Programmer Response: Examine the definitions for UNIQUE INDEX in the INDEX SPACE *indexspace-name* to determine the uniqueness constraint imposed. Please refer to SYSIBM.SYSINDEXES for the *indexspace-name* and the associated *index-name*.

For an UPDATE statement, verify that the specified operation is consistent with the uniqueness constraint. If this does not indicate the error, examine the object table to determine the cause of the problem.

For an INSERT statement, examine the object table to determine which values violate the uniqueness constraint. If the INSERT statement contains a subquery, match the contents of the table addressed by the subquery and the contents of the object table to determine the cause of the problem.

For a DELETE statement, examine the index key columns in the table that defines the index. These columns contain a foreign key, which when set NULL on a cascade delete from the object table, causes the duplicate values.

SQLSTATE: 23505

-804 AN ERROR WAS FOUND IN THE APPLICATION PROGRAM INPUT PARAMETERS FOR THE SQL STATEMENT, REASON *reason*

Explanation: The call parameter list or the SQLDA is invalid.

- The call parameter list, which is created by the precompiler, might be invalid if the application programmer has modified the output of the precompiler, used a variable name beginning with 'SQL' in the application program, or overwritten the call parameter list in some other way.
- The SQLDA, which is created by the application program, has an invalid data type or data length.
- The value of SQLDABC is not consistent with the value of SQLD.

The following is the list of reason codes:

- | | |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01 | Open issued for non-cursor. |
| 02 | Close issued for non-cursor. |
| 03 | Prepare of EXECUTE IMMEDIATE. |
| 04 | Statement is not recognized. |
| 05 | No statement string present. |
| 06 | Bad SQLDA format in parameter list. |
| 07 | SQLDA length is invalid. |
| 08 | Unrecognized input data type. |
| 09 | Invalid length for input variable. |
| 10 | Invalid data length for output variable. |
| 11 | The value of SQLDABC is not consistent with the value of SQLD. |
| 12 | Invalid input data pointer. |
| 13 | Invalid output data pointer. |
| 14 | SQLN has too many items for SQLDABC. |
| 15 | Input RDI pointer is invalid. |
| 16 | Unrecognized output data type. |
| 17 | The value of the 7th byte of SQLDAID is not consistent with the data types contained in the SQLDA. The SQLDA contains a LOB type host variable, but the 7th byte of SQLDAID is not set to '2' or greater to indicate that the extended SQLVARs have been allocated. |

System Action: The statement cannot be executed.

System Programmer Response: Examine the application program for any of the errors noted under the explanation above. In general, the application programmer should not attempt to modify the output of the precompiler.

SQLSTATE: 07002

-805 DBRM OR PACKAGE NAME *location-name.collection-id.dbrm-name.consistency-token* NOT FOUND IN PLAN *plan-name*. REASON *reason*

Explanation: An application program attempted to use a DBRM or package 'location-name.collection-id.dbrm-name.consistency-token' that was not found.

Collection id is blank ('location-name..dbrm-name.consistency-token') if the CURRENT PACKAGESET special register was blank for the local program execution.

The REASON token is blank if the length of 'location-name' is 16, the length of 'collection-id' is 18, and the length of 'dbrm-name' is 8 due to the length of SQLERRMT.

The DBRM or package name was not found for one or more of the following reasons:

- 01
 - The DBRM name was not found in the member list of the plan and there is no package list for the plan. Refer to the first SQL statement under problem determination for assistance in determining the problem.
 - The package name was not found because there is no package list for the plan. Refer to the second SQL statement under Problem Determination for assistance in determining the problem.
- 02

The DBRM name 'dbrm-name' did not match an entry in the member list or the package list. Any of the following conditions could be the problem:

Bind conditions:

 - The 'collection-id' in the package list was not correct when the application plan 'plan-name' was bound. Refer to the second SQL statement under Problem Determination for assistance in determining the problem.
 - The 'location-name' in the package list was not correct when the application 'plan-name' was bound. Refer to the second SQL statement under Problem Determination for assistance in determining the problem.
 - The 'location-name' in the CURRENTSERVER option for the bind subcommand was not correct when the application plan 'plan-name' was bound. Refer to the third SQL statement under Problem Determination for assistance in determining the problem.

Application conditions:

- The CURRENT PACKAGESET special register was not set correctly by the application.
- The application was not connected to the proper location.
- 03

The DBRM name 'dbrm-name' matched one or more entries in the package list and the search of those entries did not find the package. The conditions listed under reason 02 or the following conditions might be the problem.

- The DBRM of the version of the application program being executed was not bound (A package with the same consistency token as that of the application program was not found.) Refer to the fourth and fifth SQL statements under the Problem Determination section.
- The incorrect version of the application program is being executed.

• 04

The package, 'collection-id.dbrm-name.consistency-token', does not exist at the remote site, 'location-name'. Refer to the fifth SQL statement under the Problem Determination section.

System Action: The statement cannot be executed.

System Programmer or Programmer response:

Based on the above reasons, the programmer can perform **one or more** of the following operations for each reason to correct the error.

• 01

- Add the DBRM name 'dbrm-name' to the MEMBER list of the BIND subcommand and bind the application plan 'plan-name', or
- Add the PKLIST option with the appropriate package list entry to the REBIND subcommand and rebind the application plan 'plan-name'.

• 02

- Correct the dbrm-name of the entry in the PKLIST option and use the REBIND subcommand to rebind the application plan 'plan-name', or
- Correct the location-name of the entry in the PKLIST option and use the REBIND subcommand to rebind the application plan 'plan-name', or
- Correct the location-name in the CURRENTSERVER option and use the REBIND subcommand to rebind the application plan 'plan-name', or
- Set the CURRENT PACKAGESET special register correctly, or
- Connect to the correct location name.

• 03

All the operations under reason 02 above might fix the problem, plus the following operations.

- Correct the collection-id of the entry in the PKLIST option and use the REBIND subcommand to rebind the application plan 'plan-name', or
- Bind the DBRM of the version of the application program to be executed into the collection 'collection-id', or

- Execute the correct version of the application program. The consistency token of the application program is the same as the package that was bound.

• 04

All the operations under reason 02 and 03 might fix the problem.

Problem Determination: The following queries aid in determining the problem. Run these queries at the local location.

1. This query displays the DBRMs in the member list for the plan. If no rows are returned, then the plan was bound without a member list.

```
SELECT PLCREATOR, PLNAME, NAME, VERSION
FROM SYSIBM.SYSDBRM
WHERE PLNAME = 'plan-name';
```

2. This query displays the entries in the package list for the plan. If no rows are returned, then the plan was bound without a package list.

```
SELECT LOCATION, COLLID, NAME
FROM SYSIBM.SYSPACKLIST
WHERE PLANNAME = 'plan-name';
```

3. This query displays the CURRENTSERVER value specified on the BIND subcommand for the plan.

```
SELECT NAME, CURRENTSERVER
FROM SYSIBM.SYSPLAN
WHERE NAME = 'plan-name';
```

4. This query displays if there is a matching package in SYSPACKAGE. If the package is remote, put the location name in the FROM clause. If no rows are returned, the correct version of the package was not bound.

```
SELECT COLLID, NAME, HEX(CONTOKEN), VERSION
FROM <location-name.>SYSIBM.SYSPACKAGE
WHERE NAME = 'dbrm-name'
AND HEX(CONTOKEN) = 'consistency-token';
```

5. This query displays if there is a matching package in SYSPACKAGE. If the package is remote, put the location name in the FROM clause. Use this query when collection-id is not blank. If no rows are returned, the correct version of the package was not bound.

```
SELECT COLLID, NAME, HEX(CONTOKEN), VERSION
FROM <location-name.>SYSIBM.SYSPACKAGE
WHERE NAME = 'dbrm-name'
AND HEX(CONTOKEN) = 'consistency-token'
AND COLLID = 'collection-id';
```

SQLSTATE: 51002

ACCESS DENIED: PACKAGE
package-name IS NOT ENABLED FOR
ACCESS FROM *connection-type*
connection-name

Explanation: Access is denied for one of the following reasons:

- It is disabled, either from the 'connection-type' or from the 'connection-type' with the specific 'connection-name'.
- The attach library that you are using is from a previous release of DB2 that does not support the ENABLE and DISABLE options of the bind operation.

The variables are:

package-name

The package name (collection.package-id).

connection-type

One of the following: BATCH, DB2CALL, REMOTE, IMSBMP, IMSMPP, CICS, DLIBATCH, or UNKNOWN.

connection-name

Name of the connection that is restricted. If all connection names from a specific connection-type are restricted, this value is not specified.

System Action: The statement is not executed and the package is not allocated.

System Programmer Response: One of the following:

- Rebind the package to enable it to execute with the required connection type and name.
- Check the SYSPLSYSTEM or SYSPKSYSTEM catalog table to find a connection from which the package can be executed.
- Correct the attach library.

SQLSTATE: 23509

-808 THE CONNECT STATEMENT IS NOT CONSISTENT WITH THE FIRST CONNECT STATEMENT

Explanation: The CONNECT semantics that apply to an application process are determined by the first CONNECT statement executed (successfully or unsuccessfully) by the application process. One of the following rules was violated:

- A type 2 CONNECT statement cannot be executed after a type 1 CONNECT statement was executed.
- A type 1 CONNECT statement cannot be executed after a type 2 CONNECT statement was executed.

System Action: The statement cannot be executed.

Programmer Response: The probable cause of this error is that different programs in the application process were precompiled with different CONNECT options.

Ensure that the application process uses either type 1 or type 2 CONNECT statements and then resubmit the job. The type of CONNECT to be used is a precompiler option. The default is type 2 CONNECT.

SQLSTATE: 08001

-811 THE RESULT OF AN EMBEDDED SELECT STATEMENT OR A SUBSELECT IN THE SET CLAUSE OF AN UPDATE STATEMENT IS A TABLE OF MORE THAN ONE ROW, OR THE RESULT OF A SUBQUERY OF A BASIC PREDICATE IS MORE THAN ONE VALUE

Explanation: Execution of an embedded SELECT statement or a subselect in the SET clause of an UPDATE statement has resulted in a result table that contains more than one row. Alternatively, a subquery contained in a basic predicate has produced more than one value.

System Action: The statement cannot be executed.

Programmer Response: Examine the syntax of the statement to ensure that it contains the proper condition specifications. If the statement syntax is correct, there might be a problem with the data that is causing more than one row or value to be returned when you do not expect it.

SQLSTATE: 21000

-812 THE SQL STATEMENT CANNOT BE PROCESSED BECAUSE A BLANK COLLECTION-ID WAS FOUND IN THE CURRENT PACKAGESET SPECIAL REGISTER WHILE TRYING TO FORM A QUALIFIED PACKAGE NAME FOR PROGRAM *program-name.consistency-token* USING PLAN *plan-name*

Explanation: A last or only entry in the package list for the plan contained asterisk (*) the 'collection-id' which requires the 'CURRENT PACKAGESET' special register to be set to a nonblank 'collection-id' in order to form a qualified package name.

System Action: The statement cannot be executed.

Programmer Response: Set the 'CURRENT PACKAGESET' special register to the desired 'collection-id' or have your system administrator check the plan's package list for correctness.

SQLSTATE: 22508

-815 A GROUP BY OR HAVING CLAUSE IS IMPLICITLY OR EXPLICITLY SPECIFIED IN A SUBSELECT OF A BASIC PREDICATE OR THE SET CLAUSE OF AN UPDATE STATEMENT

Explanation: A subselect of a basic predicate or a SET clause of an UPDATE statement either:

- directly contains a GROUP BY or HAVING clause
- specifies as its object a view having a definition that includes a GROUP BY or HAVING clause

Neither construct is permitted.

System Action: The statement cannot be executed. No data was retrieved.

Programmer Response: The implied function is not supported by DB2.

No coding workaround exists for the subselect. A GROUP BY or HAVING clause cannot be used within the subselect of a basic predicate because the subselect is allowed to return only a single value. For more information on basic predicates, refer to *DB2 SQL Reference*.

SQLSTATE: 42920

-817 THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE THE STATEMENT WILL RESULT IN A PROHIBITED UPDATE OPERATION.

Explanation: The application attempted to execute an SQL statement that would result in updates to user data or to the subsystem catalog. This is prohibited for one of the following reasons:

- The application is running as an IMS inquiry-only transaction.
- The application is an IMS or CICS application that is attempting to update data at a remote DBMS that does not support two-phase commit.
- The application is attempting to update data at multiple locations and one of the locations does not support two-phase commit.
- A trigger defined with activation time BEFORE was activated and its triggered action caused updates to the database.

These SQL statements include INSERT, UPDATE, DELETE, CREATE, ALTER, DROP, GRANT, and REVOKE.

System Action: The statement cannot be executed.

Programmer Response: If the application is running as an IMS inquiry-only transaction, see your IMS system programmer about changing the inquiry-only status of the transaction under which your application is running.

If the IMS or CICS application is attempting a remote update, either the application must be changed to run as a local application on the server DBMS, or the server DBMS must be upgraded to support two-phase commit.

If the application is attempting to update data at multiple locations, either the application must be changed, or all DBMSs involved must be upgraded to support two-phase commit.

If the error is due to an invalid statement during a trigger activation, contact your system administrator to correct the trigger definition.

SQLSTATE: 25000

-818 THE PRECOMPILER-GENERATED TIMESTAMP x IN THE LOAD MODULE IS DIFFERENT FROM THE BIND TIMESTAMP y BUILT FROM THE DBRM z

Explanation: The SQL precompiler places timestamp 'y' in the DBRM, and time stamp 'x' in the parameter list in the application program for each SQL statement. At BIND time, DB2 stores the DBRM timestamp for run-time use. At run-time, timestamp 'x', for the SQL statement being processed, is compared with timestamp 'y' derived from the DBRM 'z' at BIND time. If the two timestamps do not match, the DBRM and the application program were not the result of the same precompile.

This problem can occur if you:

- Precompile, compile, and link, without doing a BIND of the application,
- Precompile and BIND, without doing the compile and link for the application program, or
- BIND the application using a DBRM that resulted from a different precompile of the application program than that which produced the object module that is linked into the application module.

The timestamps 'x' and 'y' are DB2 internal timestamps. They do not have an external interpretation.

System Action: The statement cannot be executed.

Programmer Response: BIND the application again, using the DBRM for the application program that matches the object module.

SQLSTATE: 51003

-819 THE VIEW CANNOT BE PROCESSED BECAUSE THE LENGTH OF ITS PARSE TREE IN THE CATALOG IS ZERO

Explanation: SYSIBM.SYSVTREE.VTREE is a varying-length string column that contains the parse trees of views. In processing a view, the length control field of its parse tree was found to be zero.

System Action: The statement cannot be executed.

Programmer Response: This is a system error. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SQLSTATE: 58004

-820 THE SQL STATEMENT CANNOT BE PROCESSED BECAUSE *catalog-table* CONTAINS A VALUE THAT IS NOT VALID IN THIS RELEASE

Explanation: A column of the indicated catalog table contains a value that prevents further processing of an SQL statement. The meaning of the value is unknown to

the release of DB2. If a fall back has occurred, the value is probably the result of the use of new function prior to the fall back.

System Action: The statement cannot be executed.

Programmer Response: Verify that the statement refers to the intended tables or views and that the problem is the result of a fall back. If this is the case, the statement cannot be corrected because it depends on a function that is not supported in the current release. If the problem is not the result of a fallback, -820 is a system error. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SQLSTATE: 58004

-822 THE SQLDA CONTAINS AN INVALID DATA ADDRESS OR INDICATOR VARIABLE ADDRESS

Explanation: The application program has placed an invalid address in the SQLDA.

System Action: The statement cannot be executed.

Programmer Response: Correct the application program such that valid addresses are placed in SQLDA.

SQLSTATE: 51004

-840 TOO MANY ITEMS RETURNED IN A SELECT OR INSERT LIST

Explanation: The number of items returned in the select list or presented in an insert list exceeds the allowable maximum of 750.

System Action: The statement cannot be executed.

Programmer Response: Determine whether all the information is actually needed. (Note that the number of items returned by the select list * in the SQL statement SELECT * FROM A, B, C is the sum of the number of columns in all three tables.) If not, rewrite the SQL statement so that only the necessary items of information are returned. If so, break the SQL statement up into two or more statements, as required.

SQLSTATE: 54004

-842 A CONNECTION TO *location-name* ALREADY EXISTS

Explanation: One of the following situations occurred:

- A CONNECT statement identifies a location with which the application process has a private connection, using system-directed access.
- SQLRULES(STD) is in effect and a CONNECT statement identifies an existing SQL connection.

- A private connection, using system-directed access, cannot be established because of an existing SQL connection to that location.
- A CONNECT (type 2) request that includes the USER/USING clause identifies an existing SQL connection.

System Action: The statement cannot be executed.

Programmer Response: The correction depends on the error, as follows:

- If the location name is not the intended name, correct it.
- If SQLRULES(STD) is in effect and the CONNECT statement identifies an existing SQL connection, replace the CONNECT with SET CONNECTION or change the option to SQLRULES(DB2).
- If the CONNECT statement identifies an existing private connection, destroy that connection (by using the RELEASE statement in a previous unit of work) before executing the CONNECT statement. If the SQL statements following the CONNECT can be executed using system-directed access, an alternative solution is to change the application to use that method.
- If system-directed access cannot be used, destroy the conflicting SQL connection (by using the RELEASE statement in a previous unit of work) before executing the SQL statement that requires system-directed access. An alternative solution is to change the application so that only application-directed access is used.
- Destroy the connection (by using the RELEASE statement in a previous unit of work) before executing the CONNECT statement which includes the USER/USING clause.

Correct the error in the application, rebind the plan or package, and resubmit the job.

SQLSTATE: 08002

-843 THE SET CONNECTION OR RELEASE STATEMENT MUST SPECIFY AN EXISTING CONNECTION

Explanation: One of the following rules was violated:

- A SET CONNECTION statement must identify an existing SQL connection of the application process.
- A RELEASE statement must identify an existing connection of the application process.

System Action: The statement cannot be executed.

Programmer Response: The correction depends on the error, as follows:

- If the location name is not the intended name, correct it.

- If the location name does not identify an existing SQL connection, replace the SET CONNECTION with a CONNECT statement.
- If RELEASE CURRENT was executed in the unconnected state or the specified location name does not identify an existing SQL or DB2 private connection, delete the RELEASE statement.

Correct the error in the application, rebind, the plan and resubmit the job.

SQLSTATE: 08003

-845 **A PREVIOUS VALUE EXPRESSION CANNOT BE USED BEFORE THE NEXT VALUE EXPRESSION GENERATES A VALUE IN THE CURRENT SESSION FOR SEQUENCE** *sequence-name*

Explanation: A PREVIOUS VALUE expression specified sequence *sequence-name*, but a value has not yet been generated for this sequence. A PREVIOUS VALUE expression for a sequence must not be used before a NEXT VALUE expression for that sequence is executed in this session, causing DB2 to generate a value for sequence.

System Action: The statement cannot be executed

Programmer Response: Make sure that the invocation of any PREVIOUS VALUE expression is preceded by at least one invocation of a NEXT VALUE expression for the same sequence in the session.

SQLSTATE: 51035

-846 **INVALID SPECIFICATION OF AN IDENTITY COLUMN OR SEQUENCE OBJECT** *object_type object_name.*
REASON CODE = *reason_code*

Explanation: For an identity column or sequence, the specification of an attribute in a CREATE or ALTER statement may be invalid for one of the following reasons:

- The underlying data type of the identity column or sequence object is not supported. Identity columns and sequence objects support the following data types: SMALLINT, INTEGER, and DECIMAL (or NUMERIC) with a scale of zero.
- The value for START WITH, INCREMENT BY, MINVALUE, MAXVALUE, or RESTART WITH is outside the range for the data type of the identity column or sequence object.
- MINVALUE must be less than or equal to MAXVALUE.
- An edit procedure was specified for the identity column.
- An identity column was specified for a global temporary table that was already defined by a CREATE GLOBAL TEMPORARY TABLE statement.

This error could occur for a CREATE GLOBAL TEMPORARY TABLE statement, or an ALTER TABLE statement for a global temporary table when there is an attempt to add an identity column to an existing global temporary table that was already defined by a CREATE GLOBAL TEMPORARY TABLE statement.

System Action: DB2 cannot process the statement.

Programmer Response: Correct the syntax and resubmit the statement.

SQLSTATE: 42815

-867 **INVALID SPECIFICATION OF A ROWID COLUMN**

Explanation: For an ALTER or CREATE TABLE statement, the specification of a ROWID column might be invalid for one of the following reasons:

- A ROWID column can not be added to a temporary table.
- The *referential-constraint* clause can not specify a ROWID column as a column of a foreign key.
- A ROWID column can not be a column of a primary key.
- A ROWID column can not be a column in a table with an EDITPROC.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax and resubmit the statement.

SQLSTATE: 428C7

-870 **THE NUMBER OF HOST VARIABLES IN THE STATEMENT IS NOT EQUAL TO THE NUMBER OF DESCRIPTORS**

Explanation: The number of host variables in the SQL statement does not match the number of host variable descriptors.

System Action: The statement cannot be executed.

Programmer Response: Correct the application program. The most likely cause of this problem is a missing colon before a host variable.

Problem Determination: If the SQL statement is bound locally, descriptors are built by the DB2 precompiler. For a remote SQL statement, descriptors are built by DDF and are passed in the array SQLSTTVRB.

SQLSTATE: 58026

-872 A VALID CCSID HAS NOT YET BEEN SPECIFIED FOR THIS SUBSYSTEM

Explanation: A valid CCSID was not specified on either the ASCII CODED CHAR SET, EBCDIC CODED CHAR SET, or UNICODE CODED CHAR SET subsystem parameter on installation panel DSNTIPF.

System Action: The statement cannot be executed.

Programmer Response: Contact your system administrator to have the necessary CCSID defined for your system.

SQLSTATE: 51032

-873 DATA ENCODED WITH DIFFERENT ENCODING SCHEMES CANNOT BE REFERENCED IN THE SAME SQL STATEMENT

Explanation: You cannot refer to a column defined in a table in one encoding scheme in the same SQL statement as a column defined in a table of another encoding scheme.

This situation can occur when a table created in either the ASCII, EBCDIC, or UNICODE encoding schemes is referenced in a statement with a table that is not in the same encoding scheme.

This situation can also occur when a table is created; a DECP CCSID value is changed; another table is created, and then the two tables are referenced in a single SQL statement.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement.

SQLSTATE: 53090

-874 THE ENCODING SCHEME SPECIFIED FOR THE *object-type* MUST BE THE SAME AS THE CONTAINING TABLE SPACE OR OTHER PARAMETERS

Explanation: If CCSID ASCII was specified, then the containing table space is EBCDIC or UNICODE. If CCSID EBCDIC was specified, then the containing table space is ASCII or UNICODE. If CCSID UNICODE was specified, then the containing table space is ASCII or EBCDIC.

The encoding scheme of a table must be the same as the table space which contains the table.

If a table is created using a fullselect, then the following must be the same:

- The encoding scheme of the result table of the fullselect
 - The encoding scheme in the CCSID clause (if specified)
 - The encoding scheme of the target table space
-

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement.

SQLSTATE: 53091

-875 *operand* CANNOT BE USED WITH THE ASCII DATA REFERENCED

Explanation: ASCII data was referenced in one of the following situations:

- A LIKE predicate refers to a mixed data column in an ASCII table. The LIKE predicate is not supported for mixed ASCII data.
- A VARGRAPHIC function was specified for a column in an ASCII table. The VARGRAPHIC function is not supported for ASCII data.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement.

SQLSTATE: 42988

-876 *object* CANNOT BE CREATED, REASON *reason*

Explanation: The object cannot be created in the SQL statement.

Possible values for '*object*':

TYPE 1 INDEX

The object being created is a type 1 index.

INDEX The object being created is an index.

Possible values for '*reason*':

TABLE DEFINED AS ASCII

The underlying table is defined as ASCII. Only type 2 indexes are supported for ASCII tables.

PIECESIZE IS NOT VALID

PIECESIZE is only valid for non-partitioned indexes.

PIECESIZE 4GB IS NOT VALID

PIECESIZE 4GB is only valid for non-partitioned indexes on LARGE tables.

System Action: The statement cannot be executed.

Programmer Response: Correct the SQL statement for the object being created.

SQLSTATE: 53092

-877 CCSID ASCII OR CCSID UNICODE IS NOT ALLOWED FOR THIS DATABASE OR TABLE SPACE

Explanation: The database or table space specified is required to be in EBCDIC.

System Action: The statement cannot be executed.

Programmer Response: Remove the CCSID ASCII or CCSID UNICODE clause from the statement.

SQLSTATE: 53093

-878 THE PLAN_TABLE USED FOR EXPLAIN CANNOT BE ASCII

Explanation: PLAN_TABLEs must be encoded in EBCDIC or Unicode for use with EXPLAIN.

System Action: The statement cannot be executed.

Programmer Response: Drop the existing PLAN_TABLE, and recreate it with the EBCDIC encoding scheme or use Unicode.

SQLSTATE: 53094

-879 CREATE or ALTER STATEMENT FOR *obj-name* CANNOT DEFINE A COLUMN, DISTINCT TYPE, FUNCTION OR STORED PROCEDURE PARAMETER AS MIXED OR GRAPHIC WITH ENCODING SCHEME *encoding-scheme*

Explanation: A CREATE or ALTER TABLE statement for *object-name* attempted to define a column, distinct type, or parameter of a user-defined function or stored procedure as mixed data or graphic when the system does not have an appropriate CCSID defined for the *encoding-scheme* encoding scheme.

- A CREATE, with CCSID UNICODE clause specified, cannot be processed because the proper level of OS/390 is not installed. Refer to the Program Directory for information on the level of OS/390 required for UNICODE support.
- A CREATE DISTINCT TYPE statement cannot define a distinct type, on EBCDIC or ASCII data, with a source type of CHAR FOR MIXED DATA, or GRAPHIC, VARGRAPHIC, or DBCLOB, when the MIXED DATA install option is set to NO.
- A CREATE FUNCTION or CREATE PROCEDURE statement cannot define a parameter or specify a RETURNS data type, for ASCII or EBCDIC data, as CHAR FOR MIXED DATA, or GRAPHIC, VARGRAPHIC, or DBCLOB, when the MIXED DATA install option is set to NO.

Note: This error only occurs when the encoding scheme in use is EBCDIC or ASCII. The MIXED DATA install option does not affect Unicode data.

Note: This error can occur when there is an attempt to define a column or parameter as character FOR MIXED DATA even though the keywords FOR MIXED DATA do not appear in the failing statement. This occurs when the MIXED value in DECP is YES, in this case the default subtype for the character types is FOR MIXED DATA.

System Action: The statement cannot be processed.

Programmer Response: Contact your system administrator to properly setup the installation options,

or change the data types of the elements in columns in your CREATE or ALTER statement.

SQLSTATE: 53095

-880 SAVEPOINT *savepoint-name* DOES NOT EXIST OR IS INVALID IN THIS CONTEXT

Explanation: The RELEASE TO SAVEPOINT or ROLLBACK TO SAVEPOINT statement does not identify a savepoint that exists.

System Action: DB2 does not process the statement.

Programmer Response: Correct the statement to use a valid savepoint name.

SQLSTATE: 3B001

-881 A SAVEPOINT WITH NAME *savepoint-name* ALREADY EXISTS, BUT THIS SAVEPOINT NAME CANNOT BE REUSED

Explanation: The SAVEPOINT statement uses the same savepoint name as another savepoint, and it cannot be created because at least one of the savepoints was defined with the UNIQUE clause to indicate that the name cannot be reused within the transaction.

System Action: The statement is not executed and a new savepoint is not set. The old savepoint still exists.

Programmer Response: Correct the statement. Either use a different savepoint name, or omit the UNIQUE clause if the other savepoint was created without the UNIQUE clause and your intention is to reuse that savepoint name.

SQLSTATE: 3B501

-882 SAVEPOINT DOES NOT EXIST

Explanation: A ROLLBACK TO SAVEPOINT statement was specified without a savepoint name to rollback to the last active savepoint, but no savepoint exists.

System Action: The statement is not executed.

Programmer Response: Correct the application logic to either set a savepoint or to not attempt to rollback to a savepoint.

SQLSTATE: 3B502

-900 THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE THE APPLICATION PROCESS IS NOT CONNECTED TO AN APPLICATION SERVER

Explanation: A previous failure has placed the application process in the unconnected state. The only SQL statements that can be successfully executed from the unconnected state are CONNECT, COMMIT, ROLLBACK, and local SET statements.

System Action: The statement cannot be executed.

Programmer Response: It is possible that no response is required because checking for -900 is one way of detecting the unconnected state. If this is not the case, the logic of the application program must be changed. For additional information, see the description of the CONNECT statement in Chapter 5 of *DB2 SQL Reference*.

SQLSTATE: 08003

-901 UNSUCCESSFUL EXECUTION CAUSED BY A SYSTEM ERROR THAT DOES NOT PRECLUDE THE SUCCESSFUL EXECUTION OF SUBSEQUENT SQL STATEMENTS

Explanation: A system error occurred that prevented successful execution of the current SQL statement. However, the error does not prevent successful execution of further SQL statements.

The error might occur if the length of the SQL statement is less than 0, or is greater than the DB2 maximum length for a statement.

This SQLCODE might also occur when distributed commit processing encounters an error. In this case, all servers in the unit of work that support distributed two-phase commit backed out the unit of work. If a server that does not support distributed two-phase commit has updates in the unit of work, that server must be queried to determine if its updates were committed or backed out.

Finally, this error might occur during commit if post-processing cannot be completed because of an update that changes the partition of a row. Resource unavailable problems can prevent the post-processing from completing. The existence of held cursors can prevent the post-processing from completing. Commit is failed. The transaction is aborted.

System Action: The statement cannot be executed. A X'04E' abend might be requested for the application. The application program can have a recovery routine to recover from such an abend and can retry SQL statements.

Programmer Response: If an abend occurred, notify the system programmer for analysis of the abend that caused this return code.

Even if an abend occurred, an application program receiving this return code can retry and is not prohibited from executing further SQL statements.

SQLSTATE: 58004

-904 UNSUCCESSFUL EXECUTION CAUSED BY AN UNAVAILABLE RESOURCE. REASON *reason-code*, TYPE OF RESOURCE *resource-type*, AND RESOURCE NAME *resource-name*

Explanation: The SQL statement could not be executed because resource '*resource-name*' of type '*resource-type*' was not available at the time for the reason indicated by '*reason-code*'. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes. Refer to Part 4, "Section 4. DB2 Codes," on page 773 for an explanation of the given reason code.

If this is issued in connection with Multilevel Security authorization (resource-type 402), then the Security Server return and reason codes for the unavailable resource appear as the resource-name. In this case, refer to the *z/OS Security Server RACROUTE Macro Reference*.

System Action: The SQL statement cannot be executed. If the SQL statement being executed was a cursor FETCH, DB2 closes the cursor. Subsequent attempts to use that cursor without first doing an OPEN for it receive an SQLCODE -501.

Programmer Response: Verify the identity of the resource that was not available. To determine why the resource was unavailable, refer to the specified *reason-code*.

SQLSTATE: 57011

-905 UNSUCCESSFUL EXECUTION DUE TO RESOURCE LIMIT BEING EXCEEDED, RESOURCE NAME = *resource-name* LIMIT = *limit-amount1* CPU SECONDS (*limit-amount2* SERVICE UNITS) DERIVED FROM *limit-source*

Explanation: The execution of the SQL statement was terminated because a resource limit was exceeded.

resource-name

The name of the resource whose limit was exceeded. It is also the name of the column in the DB2 table from which the limit was derived. The *resource-name* can be ASUTIME, which is the number of CPU seconds permitted for each SQL statement.

limit-amount1

The maximum number of CPU seconds permitted

limit-amount2

The maximum number in service units permitted

limit-source

The source used to derive the limit-amount: the name of a resource limit specification table, a system parameter, or the SYSIBM.SYSROUTINES catalog table. If the source is a system parameter, the resource limit specification table did not contain an applicable entry or an error occurred while accessing the table.

System Action: If the *limit-source* was a resource limit specification table or a system parameter, the execution of this SQL statement is terminated. A record containing more detailed information about this failure is generated. If an SQL cursor is associated with the failed instruction, its position is unchanged and a CLOSE or PREPARE command can be issued. If any other operation is attempted with the cursor, it cannot be executed and SQLCODE -905 is returned. If there is no cursor, this statement was rolled back.

Programmer Response: Determine why this SQL statement or stored procedure took so long and take appropriate action. Consider simplifying the SQL statement, restructuring tables and indexes, or contacting the installation group responsible for maintaining the resource limit specification tables.

If the *limit-source* was a resource limit specification table or a system parameter, the application program that receives this return code can execute additional SQL statements.

SQLSTATE: 57014

and continue processing, it must be capable of correcting the situation that caused the create thread error to occur originally.

SQLSTATE: 51005

-908 *bind-type* **ERROR USING *auth-id* AUTHORITY. BIND, REBIND OR AUTO-REBIND OPERATION IS NOT ALLOWED**

Explanation: For BIND and REBIND, the indicated authorization ID is not allowed to perform the indicated bind-type against a plan or package. An entry in the resource limit specification table (RLST) prohibits binding and rebinding by this authorization ID, or all authorization IDs. For AUTO-REBIND, the system parameter controlling AUTO-REBIND operations is set to disallow AUTO-REBIND.

bind-type

Type of bind operation (BIND, REBIND or AUTO-REBIND).

auth-id Authorization ID of the invoker of the BIND subcommand or primary authorization ID of the invoker of the plan for AUTO-REBIND operations.

System Action: The plan or package is not bound.

System Programmer Response: If the indicated authorization id should be allowed to bind, change the entry in the active RLST table. If AUTO-REBIND operations are disabled, rebind the package before reexecuting the package.

SQLSTATE: 23510

-906 **THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE THIS FUNCTION IS DISABLED DUE TO A PRIOR ERROR**

Explanation: Execution of the SQL statement failed because the requested function had been disabled by a prior error. This situation can arise if the application program has intercepted an abend (for instance, by an ON ERROR condition in a PL/I program) and continued to execute SQL statements. This situation may also arise if a DB2 CICS transaction encountered a create thread error yet continued to issue SQL requests without issuing a SYNCPOINT ROLLBACK first.

System Action: The statement cannot be executed.

Programmer Response: In general, an application program should terminate upon receipt of this return code. All subsequent attempts by the application to execute other SQL statements will also fail with the same return code. In the case of a DB2 CICS transaction, if the SQLERRP field in the SQLCA contains the module name DSNCEXT1, the transaction may issue a SYNCPOINT ROLLBACK and continue processing. If the transactions chooses to ROLLBACK

-909 **THE OBJECT HAS BEEN DELETED**

Explanation: The application program has either:
1. Dropped a table and then attempted to access it.
2. Dropped an index and then tried to access its object table using that index.

System Action: The statement cannot be executed.

System Programmer Response: The logic of the application program must be corrected such that it does not attempt to access or use an object after it has been dropped.

Dropping indexes within an application program is especially hazardous, because there is no way of determining whether or not the plan that has been generated for the application (by BIND or REBIND) actually uses a particular index for access to its object table. If the indicated authorization id should be allowed to bind, change the entry in the active RLST table. If AUTO-REBIND operations are disabled, rebind the package before reexecuting the package.

SQLSTATE: 57007

-910 THE SQL STATEMENT CANNOT ACCESS AN OBJECT ON WHICH A DROP OR ALTER IS PENDING

Explanation: The application program has issued a DROP or ALTER against an object, and then attempted to access that object before the DROP or ALTER is completed.

System Action: The statement cannot be executed.

Programmer Response: In the case of ALTER, the logic of the application program must be modified so that a COMMIT (or the IMS or CICS equivalent) is executed between the ALTER and the failing SQL statement.

For DROP, the logic of the application program should be modified such that there is no attempt to access an object after the DROP has been executed.

Note that DROP includes the case when rollback to a savepoint includes rolling back to a CREATE.

SQLSTATE: 57007

-911 THE CURRENT UNIT OF WORK HAS BEEN ROLLED BACK DUE TO DEADLOCK OR TIMEOUT. REASON *reason-code*, TYPE OF RESOURCE *resource-type*, AND RESOURCE NAME *resource-name*

Explanation: The current unit of work was the victim in a deadlock, or experienced a timeout, and had to be rolled back.

The reason code indicated whether a deadlock or timeout occurred. Refer to message DSNT500I under Chapter 18, "DSNT... Messages," on page 417 for an explanation of 'resource-type' and 'resource-name'. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

Note: The changes associated with the unit of work must be entered again.

SQLERRD(3) also contains the reason-code which indicates whether a deadlock or timeout occurred. The most common reason codes are:

- 00C90088 - deadlock
- 00C9008E - timeout

The changes associated with the unit of work must be entered again.

System Action: The statement cannot be executed. The application is rolled back to the previous COMMIT.

Programmer Response: A long-running application, or an application that is likely to encounter a deadlock, should (if possible) issue frequent COMMIT commands. This can lessen the possibility of a deadlock occurring.

See message DSNT376I for other possible ways to avoid future deadlocks or timeouts. On receipt of the SQLCODE -911, the application should, in general, terminate.

For more information about how IMS, CICS, and TSO handle deadlocks, see Part 4 of *DB2 Application Programming and SQL Guide*.

SQLSTATE: 40001

-913 UNSUCCESSFUL EXECUTION CAUSED BY DEADLOCK OR TIMEOUT. REASON CODE *reason-code*, TYPE OF RESOURCE *resource-type*, AND RESOURCE NAME *resource-name*

Explanation: The application was the victim in a deadlock or experienced a timeout. The reason code indicates whether a deadlock or timeout occurred.

Refer to message DSNT500I under Chapter 18, "DSNT... Messages," on page 417 for an explanation of 'resource-type' and 'resource-name'. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

System Action: The SQL statement cannot be executed. If the SQL statement being executed was a cursor FETCH, DB2 closes the cursor.

SQLERRD(3) also contains the reason-code which indicates whether a deadlock or timeout occurred. The most common reason codes are:

- 00C90088 - deadlock
- 00C9008E - timeout

Programmer Response: The application should either commit or roll back to the previous COMMIT. Then, generally, the application should terminate. See message DSNT376I for possible ways to avoid future deadlocks or timeouts.

For more information about how CICS and TSO handle deadlocks, see Part 4 of *DB2 Application Programming and SQL Guide*.

SQLSTATE: 57033

-917 BIND PACKAGE FAILED

Explanation: An error has occurred which prevents the package from being created. This SQLCODE can be issued during bind or commit processing.

System Action: The bind fails and the package is not created. If issued during commit processing, all changes to the database are rolled back. If issued during bind processing, only package creation fails. Other changes within the logical unit of work are committable.

Programmer Response: Correct the cause of the problem and try again.

Problem Determination: Inspect the SQLCODES

issued for the SQL statements of the package.

SQLSTATE: 42969

-918 THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE A CONNECTION HAS BEEN LOST

Explanation: Execution of the SQL statement failed because a communications link between the local DB2 and at least one remote server no longer exists. A previous failure caused this condition.

System Action: In the IMS and CICS environments, all SQL statements are rejected until the rollback occurs. In the other environments, all SQL statements other than a static ROLLBACK are rejected until a static ROLLBACK is executed.

Programmer Response: In general, an application program should issue a static ROLLBACK. Attempts by the application to issue SQL statements other than static ROLLBACK might fail. Once the static ROLLBACK is issued, the application can resume execution.

SQLERRP contains the name of the module that detected the previous failure and placed the application in the must-abort state.

SQLSTATE: 51021

-919 A ROLLBACK OPERATION IS REQUIRED

Explanation: The unit of work was placed in a state where a rollback operation is required. This can happen for the following reasons:

- An SQL statement updated a distributed database server, but the database server can be used only for read-only operations. Either updates are currently restricted to servers that support distributed two-phase commit and this application server does not support distributed two-phase commit, or updates are restricted to a single server that does not support distributed two-phase commit and this application server is not that server.

The unit of work must be terminated by a rollback operation because the update made (but not committed) at the application server cannot be committed consistently with other current or future updates made to this distributed unit of work.

- An abend occurred during the execution of a stored procedure, or a restricted SQL statement was issued from a stored procedure.
- An abend occurred during the execution of a function, or a restricted SQL statement was issued from a function.

System Action: In the IMS and CICS environments, all SQL statements are rejected until the rollback occurs. In the other environments, all SQL statements

other than a static ROLLBACK are rejected until a static ROLLBACK is executed.

Programmer Response: Correct the application, function, or stored procedure, rebind it, and resubmit the job.

SQLERRP contains the name of the module that detected the previous failure and placed the application in the must-abort state.

SQLSTATE: 56045

-922 AUTHORIZATION FAILURE: error-type ERROR. REASON reason-code

Explanation: Authorization failed because of the error indicated by *error-type*

error-type

Types of authorization failure

- User authorization
- Plan access
- Duplicate exit requested
- Installation error
- Connect

reason-code

DB2 reason code associated with authorization failure

System Action: The statement cannot be processed. The connection to DB2 is not established.

Programmer Response: If *error-type* is *user authorization*., the authorization-ID specified to DB2 through your attachment facility is not valid for DB2. See your system programmer or your CICS, IMS, or TSO system administrator.

If *error-type* is *plan access*, then the authorization ID associated with this connection is not authorized to use the specified plan name or the specified plan name does not exist. See your system administrator.

If *error-type* is *duplicate exit*, then you requested a duplicate exit.

If *error-type* is *installation error*, a connection or sign-on exit denied your request. See your system programmer.

If *error-type* is *Connect*, an SQL CONNECT request failed to connect to the local DB2 with USER/USING specified. See the reason code for a description of the failure. The application program has been placed in the connectable and unconnected state. The only SQL statements that can be successfully completed in this state are CONNET, COMMIT, ROLLBACK, and local SET statements. Any attempt to execute other SQL statements will result in an error (SQLCODE -900).

Look up the reason code in Part 4, "Section 4. DB2 Codes," on page 773 for further information.

Any attempts to issue SQL statements following the -922 SQLCODE when *error-type* is not *Connect* causes unpredictable results.

SQLSTATE: 42505

-923 CONNECTION NOT ESTABLISHED:
DB2 *condition* **REASON** *reason-code*,
TYPE *resource-type*, **NAME**
resource-name

Explanation: The connection to DB2 failed for the reason indicated by *condition*, which can be any of the following:

- DB2 not up
- DB2 not operational
- DB2 shutdown in progress
- DB2 restricted access mode
- Allocation error
- DB2 - CICS attachment not up
- DB2 - CICS ENTRY disabled
- The object is dependent on facilities of a release of DB2 that is newer than the release that you are currently running (fall back).
- DB2 restarted in LIGHT(YES) mode

Possible causes of an allocation error are:

- The application plan does not exist.
- The application plan is inoperative. An explicit REBIND or BIND is required.
- The application plan is invalid. Underlying resources have changed.
- A required database, table space, table, or index is unavailable.
- Data set allocation failed for a required data set.
- There is insufficient virtual storage.
- The application is trying to execute the plan from a system (environment) that was restricted when the plan was bound or rebound. Check the SYSPLSYSTEM table to determine from which systems (for example, IMS or CICS) the plan can be executed.

If the *condition* is "CICS attachment not up", then NAME indicates the DB2 subsystem that is not available. The *reason code* indicates the reason the attachment is not available.

If the *condition* is "CICS entry disabled", then NAME indicates the entry that is disabled.

System Action: The statement cannot be executed. The connection to DB2 is not established.

Programmer Response: If the connection failed because either DB2 or a required database, table space, table, or index was unavailable, wait until it is available before invoking the application again.

If allocation failed for an application plan, REBIND the plan to determine the problem. Error messages are produced explaining why the plan could not be allocated.

For other types of allocation errors, installation action

might be required to correct the problem.

For CICS attachment failures, resolve the primary cause as noted by the reason code. Then restart the attachment.

Problem Determination: The *reason-code*, *resource-type*, and *resource-name* might not be available. If they are not available, nothing appears. If they are available, refer to Part 4, "Section 4. DB2 Codes" for an explanation of the *reason-code*, *resource-type*, and *resource-name*.

Refer to message DSNT500I under Chapter 18, "DSNT... Messages" for an explanation of resource type and resource name. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes. Any attempts to issue SQL statements after receiving SQLCODE -923 will cause unpredictable results.

SQLSTATE: 57015

-924 DB2 CONNECTION INTERNAL ERROR,
function-code, return-code, reason-code

Explanation: Connection to DB2 has failed because of an unexpected internal error, identified by the 'reason-code'.

System Action: The statement cannot be executed. The connection to DB2 is not established.

Programmer Response: Look up the abend 'reason-code' in Part 4, "Section 4. DB2 Codes" for further information. The requested 'function-code' and 'return-code' may provide additional information. Any attempts to issue SQL statements following the SQLCODE -924 will cause unpredictable results.

SQLSTATE: 58006

-925 COMMIT NOT VALID IN IMS, CICS OR RRSF ENVIRONMENT

Explanation: An application executing in either an IMS or CICS environment or an application executing in an RRSF environment when DB2 is not the only resource manager has attempted to execute a COMMIT statement. The SQL COMMIT statement cannot be executed in these environments.

System Action: The statement cannot be executed. No commit is performed.

Programmer Response: The IMS, CICS or RRSF protocols should be used to commit work in these environments.

If a stored procedure is being called from IMS or CICS, ensure that the stored procedure is not defined to perform a commit on return.

SQLSTATE: 2D521

**-926 ROLLBACK NOT VALID IN IMS, CICS
OR RRSAF ENVIRONMENT**

Explanation: An application executing in either an IMS or CICS environment or an application executing in an RRSAF environment when DB2 is not the only resource manager has attempted to execute a ROLLBACK statement. The SQL ROLLBACK statement cannot be executed in these environments.

System Action: The statement cannot be executed. No roll back is performed.

Programmer Response: The IMS, CICS or RRS protocols should be used to rollback work in these environments.

SQLSTATE: 2D521

**-927 THE LANGUAGE INTERFACE (LI) WAS
CALLED WHEN THE CONNECTING
ENVIRONMENT WAS NOT
ESTABLISHED. THE PROGRAM
SHOULD BE INVOKED UNDER THE
DSN COMMAND**

Explanation: In the TSO environment, the user has attempted to execute an application program without first establishing the correct execution environment by issuing the DSN command. In the IMS, CICS, or call attachment facility (CAF) environment, the user has attempted to execute an application program that is not using the correct language interface module.

System Action: The statement cannot be executed.

Programmer Response: In the TSO environment, DB2 application programs should be invoked under the RUN subcommand of the DSN command processor. In the IMS, CICS or CAF environment check that the application was link-edited with or is dynamically allocating the correct language interface module. The language interface modules required in each environment are as follows:

- IMS: DFSLI000
- CICS: DSNCLI
- CAF: DSNALI
- TSO: DSNELI

The DYNAM option can result in the incorrect language interface module being loaded at runtime.

SQLSTATE: 51006

**-929 FAILURE IN A DATA CAPTURE EXIT:
token**

Explanation: 'token' is an information string provided by DPROP's exit routine which captures data changes in tables defined with DATA CAPTURE CHANGES.

System Action: The information string is placed in in the SQLERRM area of the SQLCA.

System Programmer Response: For documentation of the actions associated with this SQLCODE, refer to the Data Propagator (DPROP) publications.

SQLSTATE: 58002

**-939 ROLLBACK REQUIRED DUE TO
UNREQUESTED ROLLBACK OF A
REMOTE SERVER**

Explanation: A dynamic commit was executed preceding the execution of this request. The remote server to which the application was CONNECTed during the dynamic COMMIT successfully committed. However, at least one other remote server (which was read-only) rolled back its portion of the distributed unit of work during the dynamic commit.

To ensure that an application that uses cursor-hold cursors does not incorrectly assume cursor position is being maintained at any remote server that rolled back, the application must perform a rollback operation.

Communications are still established with all remote servers.

System Action: In the IMS and CICS environments, all SQL statements are rejected until the rollback occurs. In the other environments, all SQL statements other than a static ROLLBACK are rejected until a static ROLLBACK is executed.

Programmer Response: Issue the appropriate (depending on the environment) request to cause a rollback. Re-establish any cursor positioning and continue the application with the first request that received the -939 SQLCODE.

SQLERRP contains the name of the module that detected the previous failure and placed the application in the must-abort state.

SQLSTATE: 51021

**-947 THE SQL STATEMENT FAILED
BECAUSE IT WILL CHANGE A TABLE
DEFINED WITH DATA CAPTURE
CHANGES, BUT THE DATA CANNOT
BE PROPAGATED**

Explanation: The DPROP SUPPORT option on the installation panel is set to 2 (support DPROP only). The SQL statement would have changed a table defined with DATA CAPTURE CHANGES. However, the data cannot be propagated because the SQL statement did not originate from an IMS subsystem, or monitor trace class 6 was not active at the beginning of the unit of work for that change.

System Action: The statement is not executed.

System Programmer Response: Take one of the following actions:

- Change the installation option to 1 (no propagation) or 3 (permit changes from any subsystem).

- Change the application program that receives this SQLCODE so that it can be run in an IMS subsystem, and activate monitor trace class 6.

If the installation option is changed to 3, SQL changes to tables defined with DATA CAPTURE CHANGES are permitted from any subsystem, but they are not propagated unless the environment is set up for propagation.

SQLSTATE: 56038

-948 DISTRIBUTED OPERATION IS INVALID

Explanation: The unit of work was initiated before DDF was started, and the application attempted to perform a distributed operation. The unit of work must be terminated by a rollback operation.

System Action: In the IMS and CICS environments, all SQL statements are rejected until a rollback occurs. In the other environments, all SQL statements other than a static ROLLBACK are rejected until a static ROLLBACK is executed.

Programmer Response: An application that performs local database updates before DDF is started cannot perform distributed operations within the same unit of work. The current unit of work must be terminated by a rollback operation and a new unit of work must be initiated before any SQL operations can be performed.

Restart the current unit of work.

SQLSTATE: 56062

-950 THE LOCATION NAME SPECIFIED IN THE CONNECT STATEMENT IS INVALID OR NOT LISTED IN THE COMMUNICATIONS DATABASE

Explanation: One of the following conditions applies:

- The location name is blank.
- The data type of the host variable is not character string.
- The length attribute of the host variable is greater than 16.
- The location name does not appear in the LOCATIONS column of the SYSIBM.LOCATIONS table, nor is it the name of the local DB2 subsystem.

System Action: The statement cannot be executed. The application process is placed in the unconnected state.

Programmer Response: If the location name is specified as the value of a host variable, ensure that the name is left justified in the host variable and, if necessary, padded on the right with blanks. If this is not the problem, either SYSIBM.LOCATIONS must be updated to include the specified name, or the specified name must be changed to match a name in SYSIBM.LOCATIONS.

SQLSTATE: 42705

-952 PROCESSING WAS INTERRUPTED BY A CANCEL REQUEST FROM A CLIENT PROGRAM

Explanation: A client program issued a cancel request that terminated processing of the SQL statement.

System Action: The SQL statement was terminated and any changes made by that statement have been undone. If an SQL cursor is associated with the interrupted SQL statement, that cursor is closed.

SQLSTATE: 57014

-981 THE SQL STATEMENT FAILED BECAUSE THE RRSF CONNECTION IS NOT IN A STATE THAT ALLOWS SQL OPERATIONS, REASON *reason-code*.

Explanation: The application attempted to execute an SQL operation, but the RRSF connection was not in a state that allows the processing of SQL statements.

System Action: The statement cannot be executed.

Programmer Response: See reason-code in Part 4, "Section 4. DB2 Codes," on page 773 for an explanation of the problem. Correct the error in the application, REBIND, and run the application again.

SQLSTATE: 57015

-989 AFTER TRIGGER *trigger-name* ATTEMPTED TO MODIFY A ROW IN TABLE *table-name* THAT WAS INSERTED BY AN INSERT STATEMENT WITHIN A SELECT STATEMENT

Explanation: An INSERT statement was specified in the FROM clause of a SELECT statement of a subselect or a SELECT INTO statement, but the underlying target base table of the INSERT has an AFTER trigger defined which modifies the table being inserted. This is disallowed.

System Action: The statement cannot be processed.

Programmer Response: Avoid using the INSERT statement within SELECT, or change the trigger so that it does not modify the table that is the target of the INSERT statement.

SQLSTATE: 560C3

-991 CALL ATTACH WAS UNABLE TO ESTABLISH AN IMPLICIT CONNECT OR OPEN TO DB2. RC1= *rc1* RC2= *rc2*

Explanation: Call attach attempted to perform an implicit connect and open as the result of an SQL

statement. The connect or open failed with the returned values.

- rc1* The value returned in FRBRC1 for the failed CONNECT or OPEN request.
- rc2* The value returned in FRBRC2 for the failed CONNECT or OPEN request.

System Action: The statement cannot be executed.

Programmer Response: Verify that the application intended to use the call attachment facility (CAF) as the mechanism to connect to DB2. For functions or stored procedures running in the WLM-established stored procedure address space the application must be link-edited with or dynamically allocate the RRS attachment language interface module (DSNRLI), not CAF.

SQLSTATE: 57015

-1403 THE USERNAME AND/OR PASSWORD SUPPLIED IS INCORRECT

Explanation: The username and/or password supplied is incorrect. If either a username or password is supplied, then both must be supplied and both must have a non-zero length.

System Action: The statement cannot be executed.

User Response: Supply the correct username and password combination.

SQLSTATE: 08004

-1760 CREATE PROCEDURE FOR *procedure-name* MUST HAVE VALID LANGUAGE AND EXTERNAL CLAUSES

Explanation: A LANGUAGE or EXTERNAL clause is missing in the CREATE statement for procedure *procedure-name*. This clause must be specified.

System Action: The statement cannot be executed.

Programmer Response: Change the CREATE statement to include the missing clause and reissue the statement.

SQLSTATE: 42601

-2001 THE NUMBER OF HOST VARIABLE PARAMETERS FOR A STORED PROCEDURE IS NOT EQUAL TO THE NUMBER OF EXPECTED HOST VARIABLE PARAMETERS. ACTUAL NUMBER *sqldanum*, EXPECTED NUMBER *opnum*

Explanation: DB2 received an SQL CALL statement for a stored procedure. However, the number of host variable parameters supplied on the CALL statement does not match the expected number of host variable parameters.

sqldanum

The number of host variable parameters as determined by examining the SQLDA.

opnum

The expected number of host variable parameters as determined by parsing the statement.

System Action: The statement cannot be executed.

Programmer Response: If the SQL CALL statement is coded incorrectly, modify the SQL application to provide the correct number of parameters on the SQL CALL statement.

SQLSTATE: 53089

-4302 JAVA STORED PROCEDURE OR USER-DEFINED FUNCTION *routine-name* (SPECIFIC NAME *specific-name*) HAS EXITED WITH AN EXCEPTION *exception-string*

Explanation: User-defined function or stored procedure *routine-name* exited with a Java exception that was not a java.sql.SQLException.

If present, *exception-string* contains as much as will fit of the toString() of the exception that was uncaught.

System Action: The statement cannot be executed.

Programmer Response: The user-defined function or stored procedure probably needs to be corrected. See your database administrator, or the author of the routine to find out if the exception can be avoided, or if the user-defined function or stored procedure needs to be fixed before it can be used.

SQLSTATE: 38000

-4700 ATTEMPT TO USE NEW FUNCTION BEFORE NEW FUNCTION MODE

Explanation: To use the new functions that have been introduced in this release of DB2, new-function mode must first be enabled. This error code will be given after an attempt to use a new function before new-function mode has been enabled.

Additionally, the following statements are restricted in DB2 for z/OS Version 8 until new-function mode is enabled:

- Altering a table to increase the length of a VARCHAR column
- Altering a catalog table to DATA CAPTURE CHANGES

System Action: The statement cannot be executed.

Programmer Response: Either delay running your program until new-function mode has been enabled, or restrict your program to functions that are allowed before new-function mode is enabled.

SQLSTATE: 56038

-4701 THE NUMBER OF PARTITIONS, OR THE COMBINATION OF THE NUMBER OF TABLE SPACE PARTITIONS AND THE CORRESPONDING LENGTH OF THE PARTITIONING LIMIT KEY EXCEEDS THE SYSTEM LIMIT

Explanation: When ALTER TABLE or CREATE INDEX is used to change or create limit keys, the length of the partitioning limit key exceeds the allowed maximum. The combination of the number of table space partitions and the corresponding limit key size are subject to the following limit:

$$A * (106 + B) < 65394$$

Where A = Number of partitions, and B = Limit key size (in bytes)

The intended operation would exceed this limit.

When an ALTER TABLE statement is used to add partitions, the maximum number of partitions already exist. For non-LARGE table spaces, the limit is 8, 16, 32, or 64, depending on the initial definition. For LARGE table spaces, see *DB2 SQL Reference* for more information on the limits.

System Action: The statement cannot be executed.

Programmer Response: Decrease the size of limit key or the number of table space partitions to satisfy the constraint.

SQLSTATE: 54054

-4702 THE MAXIMUM NUMBER OF ALTERS ALLOWED HAS BEEN EXCEEDED FOR object-type

Explanation: The ALTER statement cannot be processed because the maximum number of alters for the object has already been exceeded. This can occur for the following reasons:

- The SET DATA TYPE keyword was specified on an ALTER TABLE ALTER COLUMN statement, but the maximum number of ALTER statements for this table has already been reached.
- The statement attempts to alter an index, but the maximum number of ALTER statements for this index has already been reached.

System Action: The statement cannot be executed.

Programmer Response: Run MODIFY to instruct DB2 that copies of a certain age will no longer be employed in recovery, and versions only used in those copies can be reused.

SQLSTATE: 54055

-4703 THE ALTER TABLE STATEMENT CANNOT BE EXECUTED BECAUSE COLUMN *column-name* IS MIXED DATA, OR THE DATA TYPE OR LENGTH SPECIFIED DOES NOT AGREE WITH THE EXISTING DATA TYPE OR LENGTH

Explanation: The ALTER TABLE statement for column *column-name* could not be processed for one of the following reasons:

- the existing column is MIXED and the statement attempted to convert the column to SBCS. This conversion is not supported.
- the data type or length in the ALTER statement did not match the existing data type or length of the column in the table being altered.

System Action: The statement cannot be executed

Programmer Response: Correct the SQL statement to specify a conversion that is supported.

SQLSTATE: 429BQ

-5012 HOST VARIABLE *host-variable* IS NOT EXACT NUMERIC WITH SCALE ZERO

Explanation: HOST VARIABLE *host-variable* was specified, but it is not valid in the context in which it was used. HOST VARIABLE *host-variable* was specified as part of ABSOLUTE or RELATIVE in a FETCH statement, or in a ROWS clause of a FETCH or INSERT statement. The host variable was not usable for one of the following reasons:

- It is not an exact numeric type
- The scale is not zero

System Action: The statement cannot be processed.

Programmer Response: Change the host variable to be an exact numeric with a scale of zero.

SQLSTATE: 42618

-20003 GBPCACHE NONE CANNOT BE SPECIFIED FOR TABLESPACE OR INDEX IN GRECP

Explanation: GBPCACHE NONE was specified on an ALTER TABLESPACE or ALTER INDEX statement, but the table space, index, or the partition to be altered is in GRECP.

System Action: The statement cannot be processed.

User Response: Use the START DATABASE command to recover the table space or index from the GRECP then STOP the table space or index before reissuing the ALTER statement.

SQLSTATE: 560A7

**-20004 8K or 16K BUFFERPOOL PAGESIZE
INVALID FOR A WORKFILE OBJECT**

Explanation: This message is issued when:

- A CREATE or ALTER DATABASE statement for a workfile database specifies an 8K or 16K pagesize in the BUFFERPOOL clause.
- A CREATE or ALTER TABLESPACE statement for a workfile database specifies an 8K or 16K pagesize in the BUFFERPOOL clause.

System Action: The statement cannot be executed.

User Response: Correct the statement to specify a 4K or 32K bufferpool pagesize.

SQLSTATE: 560A8

**-20005 THE INTERNAL ID LIMIT OF *limit* HAS
BEEN EXCEEDED FOR OBJECT TYPE
*object-type***

Explanation: An internal ID is used to uniquely identify objects of type *object-type*. The limit for internal IDs for this type of object is *limit*, and this limit has been exceeded.

This could occur during a CREATE DISTINCT TYPE, CREATE FUNCTION, CREATE PROCEDURE, CREATE SEQUENCE, or CREATE or ALTER TABLE statement that defines an identity column.

System Action: The SQL statement cannot be executed.

Programmer Response: Drop objects of *object-type* that are not being used, and retry the statement.

SQLSTATE: 54035

**-20006 LOBS CANNOT BE SPECIFIED AS
PARAMETERS WHEN NO WLM
ENVIRONMENT IS SPECIFIED**

Explanation: On a CREATE PROCEDURE statement, one or more LOBs (or distinct types based on LOBs) were specified in the parameter list, and the NO WLM ENVIRONMENT option was also specified.

Option NO WLM ENVIRONMENT cannot be used with LOBs in the parameter list for a stored procedure.

Note: This message is still issued with Version 8 prior to New Function Mode.

System Action: The statement is not executed.

Programmer Response: Either do not specify a LOB as a parameter, or specify a WLM ENVIRONMENT name rather than NO WLM ENVIRONMENT on your CREATE PROCEDURE statement.

SQLSTATE: 53097

**-20008 UNSUPPORTED OPTION *keyword*
SPECIFIED**

Explanation: *keyword* is a deprecated feature that was supported in releases prior to DB2 Version 8, and is no longer supported.

For indexes, only one type is currently supported — type 2.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax of the SQL statement to remove reference to the unsupported keyword. Refer to the *DB2 SQL Reference* for more information.

SQLSTATE: 560A9

**-20058 THE FULLSELECT SPECIFIED FOR
MATERIALIZED QUERY TABLE
table-name IS NOT VALID.**

Explanation: The materialized query table definition has specific rules regarding the contents of the fullselect. When DISABLE QUERY OPTIMIZATION is specified, the following additional restrictions apply:

- The fullselect cannot contain a reference to a created global temporary table or a declared global temporary table.
- The fullselect cannot reference another materialized query table.

When a materialized query table is defined with ENABLE QUERY OPTIMIZATION specified, more restrictions apply:

- The fullselect must be a subselect.
- The subselect cannot reference to a user-defined scalar or table function with the EXTERNAL ACTION or NON-DETERMINISTIC attributes, or built-in function RAND.
- The subselect cannot contain any predicates which include subqueries.
- The subselect cannot contain a nested table expression or view that requires temporary materialization.
- The subselect cannot contain a join using the INNER JOIN syntax.
- The subselect cannot contain an outer join.
- The subselect cannot contain a special register.
- The subselect cannot contain a scalar fullselect.
- The subselect cannot contain a row expression predicate.
- The subselect cannot contain sideways references.
- The subselect cannot contain table objects with multiple CCSID sets.

- The subselect cannot contain more than one table with a security label column, and the security label column must be one of the select list items of the subselect.
- If the subselect references a view, the fullselect in the view definition must satisfy the above restrictions.

System Action: The statement cannot be processed.

Programmer Response: Change the fullselect in the CREATE TABLE or ALTER TABLE statement so that it conforms to the rules listed above.

SQLSTATE: 428EC

-20070 AUXILIARY TABLE *table-name* CANNOT BE CREATED BECAUSE COLUMN *column-name* IS NOT A LOB COLUMN

Explanation: An auxiliary table cannot be created for a non-LOB column. A CREATE AUXILIARY TABLE statement must refer to a LOB column in the associated base table.

System Action: The statement cannot be executed. The specified table was not created.

Programmer Response: Change the name of the column to correctly refer to a LOB column in the base table.

SQLSTATE: 53098

-20071 WLM ENVIRONMENT NAME MUST BE SPECIFIED *function-name*

Explanation: The WLM ENVIRONMENT option was not specified on CREATE FUNCTION or CREATE PROCEDURE, and there is no default WLM environment for the installation.

System Action: The statement could not be processed.

Programmer Response: Select a WLM ENVIRONMENT name and include it in the CREATE FUNCTION or CREATE PROCEDURE statement. Contact your system administrator to find out the names of the WLM environments that have been defined for your installation.

SQLSTATE: 53099

-20072 *csect-name bind-type bind-subtype* ERROR USING *auth-id* AUTHORITY OPERATION IS NOT ALLOWED ON A TRIGGER PACKAGE *package-name*

Explanation: The package specified is a trigger package. The bind-type operation cannot be performed against a trigger package using this statement or subcommand.

csect-name

Name of the CSECT that issued the message.

bind-type

Type of bind operation (BIND, REBIND, DROP, or FREE).

bind-subtype

Subtype of bind operation (COPY or blank).

auth-id Authorization ID of the invoker of the BIND, REBIND or FREE subcommand or primary authorization ID of the currently executing process for a DROP statement.

package-name

Name of the package in the following format: 'collection.package'.

System Action: The plan or package is not bound, copied, or freed.

System Programmer Response: A trigger package cannot be explicitly bound. A trigger package cannot be copied. To rebind a trigger package locally, the REBIND TRIGGER PACKAGE subcommand must be used. A trigger package cannot be rebound remotely. To drop a trigger package, the DROP TRIGGER statement must be used.

SQLSTATE: 56052

-20073 THE FUNCTION *function-name* CANNOT BE ALTERED BECAUSE IT IS REFERENCED IN EXISTING VIEW OR MATERIALIZED QUERY TABLE DEFINITIONS

Explanation: The *function-name* in an ALTER FUNCTION statement cannot be altered to NOT DETERMINISTIC or EXTERNAL ACTION. It is referenced in one or more existing view definitions or materialized query table definitions.

System Action: The statement cannot be executed.

Programmer Response: Drop the views that reference the function before issuing the ALTER FUNCTION statement. Drop the materialized query tables that reference the functions or alter the materialized query tables that reference the functions into base tables before issuing the ALTER FUNCTION statement.

SQLSTATE: 42927

-20074 THE OBJECT *object-name* CANNOT BE CREATED BECAUSE THE FIRST THREE CHARACTERS ARE RESERVED FOR SYSTEM OBJECTS

Explanation: In general, SYS is a reserved prefix for names. The only exceptions are:

- SYSADM and SYSTOOLS are valid schema names.
- SYSPROC is a valid schema name for stored procedures.

- SYSIBM is a valid schema name for a stored procedure when the current application process has the SYSADM or SYSCTRL privilege.
- SYSTOOLS is a valid schema name when the current application process has the SYSADM or SYSCTRL privilege.

This condition is similar to the condition reported in precompiler message DSNH794I.

This message is also issued if an attempt is made to grant the CREATEIN, ALTERIN or DROPIN privileges on a schema with the SYS prefix. The same exceptions apply to the grant.

System Action: The statement is not executed.

Programmer Response: Select a name that does not start with a reserved prefix.

SQLSTATE: 42939

-20091 A VIEW NAME WAS SPECIFIED AFTER LIKE IN ADDITION TO THE INCLUDING IDENTITY COLUMN ATTRIBUTES CLAUSE

Explanation: The LIKE clause specified the name of a view in combination with the INCLUDING IDENTITY COLUMN ATTRIBUTES clause. This usage is not supported.

System Action: The statement is not executed.

Programmer Response: Remove the INCLUDING IDENTITY COLUMN ATTRIBUTES clause and resubmit the statement to copy the existing view definition without the identity column attributes.

In the case of DECLARE GLOBAL TEMPORARY TABLE, it is possible to get the identity column attributes for a column of a view using the AS *subselect* clause with INCLUDING IDENTITY COLUMN ATTRIBUTES instead. For example:

```
DECLARE GLOBAL TEMPORARY TABLE ....
AS (SELECT * FROM view-name) DEFINITION ONLY
INCLUDING IDENTITY COLUMN ATTRIBUTES
```

SQLSTATE: 560AD

-20092 A VIEW WAS SPECIFIED FOR LIKE BUT IT INCLUDES A ROWID COLUMN

Explanation: The LIKE clause specified the name of a view that contains a ROWID column. This is not supported.

System Action: The statement is not executed.

Programmer Response: Specify the name of a view that does not contain a ROWID column (or distinct type column for which the source type is ROWID), or specify the name of a table and resubmit the statement.

SQLSTATE: 560AE

-20093 THE TABLE *table-name* CANNOT BE CONVERTED TO OR FROM A MATERIALIZED QUERY TABLE, OR THE MATERIALIZED QUERY TABLE PROPERTY CANNOT BE ALTERED. REASON CODE = *reason-code*.

Explanation: The ALTER TABLE statement was not able to change a table from a materialized query table to a base table, to convert a base table to a materialized query table, or to change the materialized query table properties. The ALTER TABLE statement failed because of one of the following error situations, as indicated by *reason-code*:

reason-code

	Description
2	The table is not a materialized query table, and DROP MATERIALIZED QUERY is specified.
4	The table has at least one trigger defined.
5	The table has at least one check constraint defined.
6	The table has at least one unique constraint or index defined.
7	The table has at least one referential constraint defined.
8	The table is referenced in the definition of an existing materialized query table, or it is referenced in the definition of a view when altering to a system-maintained materialized query table.
9	The table is referenced directly or indirectly (through a view, for example) in the fullselect.
10	The table is already a materialized query table.
11	The number of columns of the existing table does not match the number of columns that are defined in the select list of the fullselect.
12	The data types of the columns of the existing table do not exactly match the corresponding columns in the select list of the fullselect.
13	The column names of the columns of the existing table do not exactly match the corresponding column names in the select list of the fullselect.
14	The nullability, default, or other characteristics of the columns of the existing table do not exactly match the characteristics of the corresponding columns in the select list of the fullselect.
15	The conversion cannot be performed if there are any other table alterations in the same ALTER TABLE statement.

16 The table is not a materialized query table, and alteration of materialized query table properties was specified.

System Action: The statement cannot be processed.

Programmer Response: Depending on *reason-code*, take the following action:

reason-code

Action

2 There is no need to convert this table. No action is required.

4 Drop any triggers, and try the ALTER TABLE statement again.

5 Drop any check constraints, and try the ALTER TABLE statement again.

6 Drop any unique constraint and unique indexes. Try the ALTER TABLE statement again.

7 Drop the referential constraints, and try the ALTER TABLE statement again.

8 Drop the materialized query table that references the table, and try ALTER TABLE statement again.

9 A materialized query table cannot reference itself. Modify the fullselect to remove the direct or indirect reference to the table being altered.

10 The operation is not allowed since the table is already a materialized query table.

11 Modify the fullselect to include the correct number of columns in the select list.

12 Modify the fullselect so that the result column data types exactly match the data types of the corresponding existing columns.

13 Modify the fullselect so that the result column names exactly match the column names of the corresponding existing columns.

14 The table cannot be converted to a materialized query table unless the the nullability characteristics can be matched. Create a new materialized query table instead.

15 Perform the other table alterations in an ALTER TABLE statement that do not include the ADD MATERIALIZED QUERY clause.

16 Either correct the table name to specify a materialized query table, or use the ALTER TABLE statement to convert the table to a materialized query table with the required properties.

SQLSTATE: 428EW

-20100 AN ERROR OCCURRED WHEN BINDING A TRIGGERED SQL STATEMENT. INFORMATION RETURNED: SECTION NUMBER : *section-number* **SQLCODE** *sqlerror*, **SQLSTATE** *sqlstate*, **AND MESSAGE TOKENS** *token-list*

Explanation: During execution of a CREATE TRIGGER statement, the SQL statements specified in the triggered action are bound into a trigger package. During that processing, an error was discovered in one of those statements.

section-number

The section number associated with the failing triggered SQL statement. For triggers that contain a WHEN clause, the WHEN clause is section number one. The triggered SQL statements are numbered sequentially, beginning with section number two. This is true for triggers with or without a WHEN clause.

sqlcode

The SQLCODE received when binding the statement.

sqlstate

The corresponding SQLSTATE for the SQLCODE received when binding the statement.

token-list

The list of tokens from the original SQL error. This list might be truncated.

System Action: The CREATE TRIGGER statement was not processed. The trigger and the trigger package were not created.

Programmer Response: Use the section number determine the failing triggered SQL statement. Refer to the explanation of the reported SQLCODE. Follow the action suggested by that message.

SQLSTATE: 56059

-20101 THE FUNCTION *function* FAILED WITH REASON *rc*

Explanation: The statement attempted to execute a function *function*. The statement failed, Reason Code *rc*

Possible values for *rc* are: 00E73001, 00E73002, 00E73003, and 00E73004.

System Action: The statement cannot be executed.

Programmer Response: Correct the condition described by the DB2 reason code.

SQLSTATE: 56060

-20102 CREATE OR ALTER STATEMENT FOR ROUTINE *routine-name* SPECIFIED THE *option* OPTION WHICH IS NOT ALLOWED FOR THE TYPE OF ROUTINE

Explanation: An option was specified that is not allowed for the type of routine being created or altered.

- MODIFIES SQL DATA is not allowed for table functions.
- ALLOW PARALLEL is not allowed for table functions.
- CARDINALITY is not allowed for non-table functions.
- LANGUAGE SQL is not allowed for non-SQL functions or procedures.
- LANGUAGE specifying something other than SQL is not allowed for SQL functions or procedures.
- LANGUAGE JAVA is not allowed for table functions.
- PARAMETER STYLE JAVA is not allowed for table functions.

System Action: The statement cannot be processed.

Programmer Response: Remove the option from the statement and reissue the failing statement.

SQLSTATE: 42849

-20104 AN ATTEMPT TO ALTER A CCSID FROM *from-ccsid* TO *to-ccsid* FAILED

Explanation: The statement attempted to alter the CCSID for a database or table space and the statement failed.

from-ccsid represents the CCSID that is currently in use for the database or table space.

to-ccsid is the CCSID that specified on the alter statement.

System Action: The statement cannot be executed.

Programmer Response: The SQL REFERENCE contains a list of CCSIDs that may be specified on this statement. Only CCSIDs specified in this appendix may be altered, and then, only to the corresponding value listed in the table. Altering the CCSID of a database or table space to a value not listed in the table is not permitted.

SQLSTATE: 42856

-20106 THE CCSID FOR TABLE SPACE OR DATABASE CANNOT BE CHANGED BECAUSE THE TABLE SPACE OR DATABASE ALREADY CONTAINS A TABLE THAT IS REFERENCED IN EXISTING VIEW OR MATERIALIZED QUERY TABLE DEFINITIONS

Explanation: An ALTER statement cannot be used to alter the CCSID for a table space or database that contains a table that is referenced in existing view definitions.

System Action: The statement cannot be executed.

Programmer Response: To alter the CCSID for the specified space, first drop any existing view definitions that refer to tables contained in the identified space and then reissue the ALTER statement.

SQLSTATE: 42945

-20107 HOST VARIABLE OR PARAMETER NUMBER *position-number* CANNOT BE USED AS SPECIFIED BECAUSE REASON *reason*

Explanation: DB2 received data that could not be used as specified in the statement because it is not convertible to an acceptable format in this machine environment.

position-number identifies either the host variable number (if the message is issued as a result of an INSERT, UPDATE, DELETE, SELECT, SET, or VALUES statement), or the parameter number (if the message is issued as the result of a CALL statement, or the invocation of a function).

reason

- 01** IEEE (BFP) floating point instructions or instruction emulation is not available. This support is called the basic-floating-point-extensions facility, and is discussed in detail in *z/Architecture Principles of Operation*.

System Action: The statement cannot be executed.

Programmer Response: This host variable or parameter requires machine instructions that are not available on this machine. These instructions must be available to DB2 to perform the requested operation. Run this statement on a machine that is capable of supporting the required operations. Contact your system administrator.

SQLSTATE: 53022

-20108 A RESULT SET CONTAINS AN UNSUPPORTED DATA TYPE IN POSITION NUMBER *position-number* FOR CURSOR *cursor-name* OPENED BY STORED PROCEDURE *procedure-name*

Explanation: Stored procedure *procedure-name* cannot return one or more query result sets. *cursor-name* indicates the first query result set that the stored procedure cannot return. The column at *position-number* in the query result set contains a data type that is not supported by the requester or the server.

System Action: The CALL statement cannot be executed.

Programmer Response: Modify the stored procedure at the server to return result sets that include only data

types that are supported by the requester. You may also upgrade the level of code at the requester to one that supports the data type(s) that were returned by the server.

SQLSTATE: 56084

-20110 CANNOT IMPLICITLY CONNECT TO A REMOTE SITE WITH A SAVEPOINT OUTSTANDING

Explanation: The statement referenced an object at a remote DBMS with an alias or a three-part name when an active savepoint exists. Such a reference requires an implicit connection to the remote DBMS, which is not allowed when there is an outstanding savepoint.

System Action: The statement is not executed.

Programmer Response: Either release the savepoint, or move the data.

SQLSTATE: 51036

-20111 CANNOT ISSUE SAVEPOINT, RELEASE SAVEPOINT, ROLLBACK TO SAVEPOINT FROM A TRIGGER, FROM A USER-DEFINED FUNCTION, OR FROM A GLOBAL TRANSACTION

Explanation: SAVEPOINT, RELEASE SAVEPOINT, and ROLLBACK TO SAVEPOINT statements can not be used in the body of a trigger or a global transaction.

System Action: The statement is not executed.

Programmer Response: Correct the logic of the application program so that this error does not occur.

SQLSTATE: 3B503

-20123 CALL TO STORED PROCEDURE *procedure* FAILED BECAUSE THE RESULT SET RETURNED FOR CURSOR *cursor* IS SCROLLABLE, BUT THE CURSOR IS NOT POSITIONED BEFORE THE FIRST ROW

Explanation: A scrollable result set for cursor *cursor* has been returned by a CALL to stored procedure *procedure*, and one or more of these cursors is not positioned before the first row.

System Action: The Call to the stored procedure was unsuccessful. All result set cursors defined in the stored procedure were closed before returning to the caller. The scrollable cursor can not be used to FETCH from the result set. Actions completed by the stored procedure are not rolled back, and any external actions initiated by the stored procedure have completed because the error was detected upon completion of the stored procedure.

Programmer Response: Modify the content of the stored procedure to ensure that the result set cursors

are positioned before the first row before returning to the caller.

SQLSTATE: 560B1

-20124 OPEN CURSOR *cursor* FAILED BECAUSE THE CURSOR IS SCROLLABLE BUT THE CLIENT DOES NOT SUPPORT THIS

Explanation: The cursor *cursor* has been defined as scrollable, but the client is downlevel and does not support scrollable cursors. The DRDA Application Requestor is not able to process scrollable result sets.

System Action: The statement cannot be processed.

Programmer Response: Modify the definition of the cursor to not be scrollable.

SQLSTATE: 560B2

-20125 CALL TO STORED PROCEDURE *procedure* FAILED BECAUSE THE RESULT SET FOR CURSOR *cursor* IS SCROLLABLE, BUT THE CLIENT DOES NOT SUPPORT THIS

Explanation: A scrollable result set for cursor *cursor* has been returned by a CALL for stored procedure *procedure*, but the client is downlevel and does not support scrollable cursors. The DRDA Application Requestor is not able to process scrollable result sets.

System Action: The statement cannot be processed. All result set cursors that are defined in the stored procedure were closed before returning to the caller. The scrollable cursor cannot be used to FETCH from the result set. Actions that were completed by the stored procedure are not rolled back, and any actions that were initiated by the stored procedure have completed because the error was detected at the end of the execution of the stored procedure.

Programmer Response: Modify the content of stored procedure *procedure* to not define result set cursors as scrollable.

SQLSTATE: 560B3

-20127 VALUE SPECIFIED ON FETCH STATEMENT FOR ABSOLUTE OR RELATIVE IS TOO LARGE FOR DRDA

Explanation: The value that was specified after ABSOLUTE or RELATIVE on a FETCH statement is larger than 64 bits. DRDA limits this specification to 64 bits.

System Action: The statement cannot be processed.

Programmer Response: Modify the scroll specification on the FETCH statement.

SQLSTATE: 56051

-20129 LOCAL SPECIAL REGISTER IS NOT VALID AS USED

Explanation: Local special registers cannot be referenced in an assignment statement (SET or VALUES INTO) that assigns multiple values. For example, the following special registers are local: CURRENT SERVER and CURRENT PACKAGESET.

Additionally, the local special registers cannot be referenced in a SET host-variable statement that has parenthesis around the special register.

The following statements are not valid:

```
SET (:hv1) = (CURRENT SERVER);
SET (:hv1,:hv2) = (CURRENT SERVER,CURRENT
PATH);
VALUES CURRENT SERVER, CURRENT DATE
INTO :c1, :c2;
```

Severity: 8 (error)

System Action: The statement cannot be executed.

Programmer Response: Split the statement into multiple statements so that the local special registers are not referenced in a statement that assigns multiple values. Also be sure that a SET statement for a local special register does not use parenthesis on either side of the equal sign.

SQLSTATE: 560B5

-20142 SEQUENCE *sequence-name* CANNOT BE USED AS SPECIFIED

Explanation: *sequence-name* was referenced in a context in which it cannot be used. It was an invalid reference to a system-generated sequence object. *sequence-name* is a sequence that was generated by the system for an identity column. These sequences cannot be referenced in:

- An ALTER SEQUENCE statement
- A DROP SEQUENCE, COMMENT ON SEQUENCE, GRANT, or REVOKE statement
- A NEXTVAL or PREVVAl expression

System Action: The statement cannot be executed.

Programmer Response: Specify the name of a user-defined sequence object in this context.

SQLSTATE: 428FB

-20143 THE ENCRYPTION OR DECRYPTION FUNCTION FAILED, BECAUSE THE ENCRYPTION PASSWORD VALUE IS NOT SET

Explanation: The ENCRYPTION PASSWORD value is not set.

System Action: The statement cannot be executed

Programmer Response: Issue the SET

ENCRYPTION PASSWORD statement to set the ENCRYPTION PASSWORD value. The length of the PASSWORD must be a minimum of 6 bytes and a maximum of 127 bytes.

SQLSTATE: 51039

-20144 THE ENCRYPTION IS INVALID BECAUSE THE LENGTH OF THE PASSWORD WAS LESS THAN 6 BYTES OR GREATER THAN 127 BYTES

Explanation: The data must be encrypted with a password length between 6 and 127 bytes.

System Action: The statement cannot be executed

Programmer Response: Ensure that your password length is between 6 and 127 bytes in length.

SQLSTATE: 428FC

-20146 THE DECRYPTION FAILED. THE DATA IS NOT ENCRYPTED

Explanation: The data must be encrypted before it is decrypted.

System Action: The statement cannot be executed

Programmer Response: Ensure that the data being decrypted has been encrypted using the ENCRYPT_TDES built-in-function.

SQLSTATE: 428FE

-20147 THE ENCRYPTION FUNCTION FAILED. MULTIPLE PASS ENCRYPTION IS NOT SUPPORTED

Explanation: Data that has already been encrypted, cannot be encrypted again.

System Action: The statement cannot be executed

Programmer Response: Ensure that the data that is being encrypted has not already been encrypted.

SQLSTATE: 55048

-20163 HEXADECIMAL CONSTANT GX IS NOT ALLOWED

Explanation: A hexadecimal graphic string constant, GX, was used in a statement when one of the following two conditions was true:

- The MIXED DATA install option is set to NO.
- The application encoding scheme is UNICODE.
- The GX constant was specified as a column default value in a WITH DEFAULT clause.
- The GX constant was specified as a limit key value in a VALUES clause.

System Action: The statement cannot be executed.

Programmer Response: If your data is not graphic, use an X hexadecimal constant instead of a GX constant. If your MIXED DATA install option is set to NO, contact your system administrator to set up the installation options properly for use with the GX constant. If your application encoding scheme is UNICODE, use a UX hexadecimal constant instead of GX.

SQLSTATE: 560B9

**-20165 INSERT STATEMENT WITHIN A
SELECT IS NOT ALLOWED IN THE
CONTEXT IN WHICH IT WAS
SPECIFIED**

Explanation: An INSERT statement can be specified in the FROM clause of a SELECT in specific contexts. It is only allowed as the only table-spec in the FROM clause of a SELECT statement (excluding the common table expressions) that is a subselect or a SELECT INTO statement.

System Action: The statement cannot be processed.

Programmer Response: Change the statement so that the INSERT statement is used only in a SELECT statement that is a subselect or a SELECT INTO statement. Ensure that the INSERT statement in the FROM clause is the only table-spec in the FROM clause.

SQLSTATE: 428FL

**-20166 INSERT STATEMENT WITHIN A
SELECT SPECIFIED A VIEW *view-name*
WHICH IS NOT A SYMMETRIC VIEW**

Explanation: The target view of the INSERT statement within a SELECT statement must be defined WITH CASCADED CHECK OPTION or the fullselect in the view definition must not have a WHERE clause.

A symmetric view is a view defined implicitly or explicitly with the WITH CASCADED CHECK OPTION.

System Action: The statement cannot be executed

Programmer Response: Do not use the INSERT statement within a SELECT with the specified view.

SQLSTATE: 428FM

**-20177 SET DATA TYPE CLAUSE ON ALTER
TABLE SPECIFIED FLOATING POINT,
BUT THIS CHANGE IS DISALLOWED**

Explanation: The SET DATA TYPE clause of an ALTER TABLE statement specified floating point as the new data type. However, there is an existing unique index or constraint that is defined on the column. This type of change is not allowed when unique indexes or constraints are defined on the column to be changed.

Programmer Response: Change the statement to

specify a different compatible data type, and resubmit the statement.

SQLSTATE: 530A1

**-20180 COLUMN *column-name* IN TABLE
table-name CANNOT BE ALTERED AS
SPECIFIED**

Explanation: Column *column-name* cannot be altered for one of the following reasons:

- ALTER COLUMN cannot be specified on ALTER TABLE if:
 - The table is defined with DATA CAPTURE CHANGES
 - The column is involved in a referential integrity constraint (either as part of the parent key or foreign key)
 - The column has a field procedure defined
 - or the column is an identity column
- Additionally, SET DATA TYPE cannot be specified on ALTER TABLE if:
 - The table is a materialized query table
 - The table has an edit procedure or valid procedure

System Action: The statement cannot be executed.

Programmer Response: Change the name of the column to a column that can be altered, or drop and recreate the table with the necessary attributes.

SQLSTATE: 428FR

**-20181 COLUMN CANNOT BE ADDED TO
INDEX *index-name***

Explanation: An ALTER INDEX ADD COLUMN statement attempted to add a column to an index that is an auxiliary index, enforces a primary key, unique key, referential constraint, or ROWID column; or, the index is a partitioning index, and index-based partitioning is being used.

System Action: The statement cannot be executed.

Programmer Response: Change the statement to refer to an index that can have a column added to it.

SQLSTATE: 428FS

**-20182 *values* PARTITIONING CLAUSE ON
stmt-type STATEMENT FOR *index-name*
IS NOT VALID**

Explanation: The *values* PARTITIONING clause was not accepted on CREATE or ALTER INDEX statement for one of the following reasons:

- On ALTER INDEX, if the table uses *table-based* CONTROLLED partitioning, or if the index is a partitioning index created in Version 8 or later releases.

- On CREATE INDEX, *values* partitioning attributes were specified on a previous CREATE or ALTER TABLE statement for the table.
- On CREATE INDEX, if the partitioning scheme of the index is predetermined by that of the underlying data.
- When altering partition limit key values, if there are any large object (LOB) columns in the table.

System Action: The statement cannot be executed.

Programmer Response: Change the name of the index to an index for which the *values* partitioning clause would be valid, and resubmit the statement.

SQLSTATE: 530A2

-20183 THE PARTITIONED, ADD PART, ADD PARTITIONING KEY, OR ALTER PART CLAUSE SPECIFIED ON CREATE OR ALTER FOR *name* IS NOT VALID

Explanation: The PARTITIONED, ADD PART, ADD PARTITIONING KEY, and ALTER PART clauses cannot be specified on ALTER TABLE, CREATE INDEX, or CREATE TABLE if:

- The table is a non-partitioned table
- The table is a materialized query table
- A materialized query table is defined on this table

Additionally, the ADD PARTITIONING KEY clause cannot be specified if the table is already complete by having established either table-based partitioning or index-based partitioning.

System Action: The statement cannot be executed.

SQLSTATE: 428FT

-20185 CURSOR *cursor-name* IS NOT DEFINED TO ACCESS ROWSETS, BUT A CLAUSE WAS SPECIFIED THAT IS VALID ONLY WITH ROWSET ACCESS

Explanation: The FOR ROW *n* OF ROWSET clause was specified on a FETCH statement, but the cursor is not defined for rowset access.

System Action: The statement cannot be processed.

Programmer Response: Remove the FOR *n* ROWS clause from the FETCH statement, or redefine the cursor for multiple row access with the WITH ROWSET POSITIONING clause on DECLARE CURSOR or PREPARE.

SQLSTATE: 24518

-20186 A CLAUSE SPECIFIED FOR THE DYNAMIC SQL STATEMENT BEING PROCESSED IS NOT VALID

Explanation: A clause was not valid for one of the following reasons:

- On a PREPARE statement, a FOR SINGLE ROW or FOR MULTIPLE ROWS clause was specified. However, the statement that was being prepared was not an INSERT statement.
- On a PREPARE statement, an ATOMIC or NOT ATOMIC clause was specified. However, the statement that was being prepared was not an INSERT statement.
- On an EXECUTE statement, a multiple-row-insert clause was specified. However, the statement that was being executed was not an INSERT statement.
- On a PREPARE statement, a SENSITIVE DYNAMIC clause and SCROLL clause were specified. However, the content of the query requires the use of a temporary table for processing.
- On an EXECUTE statement, a multiple-row-insert clause was specified. However, the statement that was being executed was not an INSERT statement that was prepared with FOR MULTIPLE ROWS specified as part of the ATTRIBUTES clause on the PREPARE statement.
- On an EXECUTE statement, a multiple-row-insert clause was not specified. However, the statement that was being executed was an INSERT statement, and FOR MULTIPLE ROWS was specified as part of the ATTRIBUTES clause on the PREPARE statement.
- On an EXECUTE statement, a FOR *n* ROWS clause was specified. However, the INSERT statement that was being executed also contained a FOR *n* ROWS clause.
- On an EXECUTE statement, host variable arrays were provided. However, the FOR *n* ROWS clause was not specified (on either the EXECUTE or INSERT statement).

System Action: The statement cannot be processed.

Programmer Response: Remove the clause that was not valid in the context in which it was used.

SQLSTATE: 07501

-20200 THE INSTALL OR REPLACE OF *jar-id* WITH URL *url* FAILED DUE TO REASON *reason-code* (*reason-string*).

Explanation: The URL that was specified on the install or replace jar procedure did not identify a valid jar file.

jar-id Name of the JAR that was specified for INSTALL_JAR or REPLACE_JAR

url Up to 80 characters of the URL are displayed.

The possible values for reason-code and reason-string appear below:

1 (FILE NOT FOUND)

No HFS file was found with the name specified.

2 (URL FORMAT)

The URL must begin with 'file:/' or 'file://'.

3 (FILE SIZE)

The file must not be larger than 100MB.

System Action: The statement cannot be processed.

SQLSTATE: 46001

User Response: Reissue the install or replace jar procedure with a URL that identifies a valid jar file.

-20201 THE INSTALL, REPLACE, OR REMOVE OF *jar-name* FAILED DUE TO REASON *reason-code* (*reason-string*)

Explanation: The jar name *jar-name* that was specified on the install, replace, or remove jar procedure was invalid. For example, the jar may be of the improper format, may not exist to be replaced or removed, or cannot be installed as it already exists.

The possible values for reason-code and reason-string appear below:

1 (UNDEFINED JAR)

A JAR with the name specified on REPLACE_JAR or REMOVE_JAR does not exist in DB2.

2 (SCHEMA LENGTH)

In the jar-name parameter, the schema delimiter '.' was found after more than 128 bytes, but the schema has a maximum of 128 bytes.

3 (NAME LENGTH)

In the jar-name parameter, more than bytes were found after the schema delimiter or the default schema was used, and the Jar name exceeds the maximum of 128 bytes.

4 (PARSER ERROR)

During INSTALL_JAR or REMOVE_JAR processing, the DB2 parser was invoked and returned an error. This may be due to invalid characters or invalid length of the jar name parameter.

5 (DUPLICATE JAR)

A JAR with the name specified on INSTALL_JAR already exists in DB2.

System Action: The statement cannot be processed.

SQLSTATE: 46002

User Response: Correct the jar identifier parameter and re-issue the request.

-20202 THE REPLACE OR REMOVE OF *jar-name* FAILED AS *class* IS IN USE

Explanation: The specified class in the jar file is currently in use by a defined routine, or the replacement

jar file does not contain the specified class for which a routine is defined.

System Action: The statement cannot be processed.

User Response: Ensure all routines referencing the classes being removed are dropped, and resubmit the replace or remove procedure.

SQLSTATE: 46003

-20203 USER-DEFINED FUNCTION OR PROCEDURE *name* HAS A JAVA METHOD WITH AN INVALID SIGNATURE. THE ERROR IS AT OR NEAR PARAMETER *number*. THE SIGNATURE IS *signature*.

Explanation: The signature of the java method that was used to implement the function or procedure was invalid. For example, the method may have parameters that are not mappable to the parameters on the corresponding CREATE PROCEDURE statement.

name identifies the specific name of the external Java function or procedure whose signature caused the error

number indicates the position of the parameter within the signature closest to the error

signature provides at most the first 100 characters of the invalid signature

System Action: The statement is not executed.

Programmer Response: Reissue the corresponding CREATE statement specifying parameters that match the Java method, or correct the specified procedure or function signature.

SQLSTATE: 46007

-20204 THE USER-DEFINED FUNCTION OR PROCEDURE *routine-name* WAS UNABLE TO MAP TO A SINGLE JAVA METHOD

Explanation: A CREATE or ALTER FUNCTION or PROCEDURE statement for *routine-name* specified a Java method in the EXTERNAL NAME clause that cannot be used. The EXTERNAL NAME clause did not contain a matching Java method, or contained more than one matching Java method.

System Action: The statement cannot be processed.

Programmer Response: The EXTERNAL NAME clause of the identified function or procedure must be altered to uniquely identify a valid Java method for the routine, or the Java class must be changed to have a single method with the specified or implicit signature.

SQLSTATE: 46008

-20207 THE INSTALL OR REMOVE OF *jar-name* SPECIFIED THE USE OF A DEPLOYMENT DESCRIPTOR.

Explanation: The DEPLOY or UNDEPLOY parameter of the install or remove jar procedure for *jar-name* was non-zero. Use of deployment descriptors is not supported, and this parameter must be zero.

System Action: The JAR is not installed, or removed.

User Response: Reissue the INSTALL_JAR or REMOVE_JAR procedure call with the DEPLOY or UNDEPLOY parameter set to zero.

SQLSTATE: 46501

-20210 THE SQL STATEMENT CANNOT BE EXECUTED BECAUSE IT WAS AT A LEVEL THAT IS INCOMPATIBLE WITH THE CURRENT VALUE OF THE ENCODING BIND OPTION OR SPECIAL REGISTER

Explanation: The SQL statement was precompiled at a level prior to Version 7, but the current value of the ENCODING bind option or special register does not represent the system EBCDIC CCSIDs. The information that is necessary to execute the SQL statement is unavailable for processing, and the SQL statement cannot be successfully completed. Additional processing of the SQL statement is terminated.

An application that was precompiled prior to DB2 Version 7 may not be bound, either implicitly or explicitly, with an ENCODING bind option of anything other than ENCODING(EBCDIC) or ENCODING(*ccsid*) where *ccsid* represents the system EBCDIC CCSID. If the value of MIXED DATA for the system is YES, then *ccsid* must be the default EBCDIC mixed CCSID. Otherwise, *ccsid* must be the default EBCDIC single byte CCSID.

System Action: The statement cannot be executed.

Programmer Response: To correct the situation, you may:

- Precompile the program again using the current precompiler and reissue the BIND command
- Reissue the BIND command using ENCODING(EBCDIC) or ENCODING(*ccsid*) where *ccsid* represents the system EBCDIC CCSID.

SQLSTATE: 560B8

-20212 USER-DEFINED ROUTINE *name* ENCOUNTERED AN EXCEPTION ATTEMPTING TO LOAD JAVA CLASS *class-name* FROM JAR *jar-name*. ORIGINAL EXCEPTION: *exception-string*.

Explanation: A Java exception occurred while DB2 was trying to load a Java class. The error can occur when loading the class that is identified in the

EXTERNAL NAME clause, or a referenced class. This message could indicate more than that a class was not found. Some examples would be an I/O error occurring when reading the JAR file, or an SQL error occurring when reading the BLOB containing the JAR from the DB2 catalog.

name the specific name of the external Java function or procedure that caused the ClassNotFoundException

class-name the Java class DB2 was trying to load when the error occurred

jar-name the jar that the class was being loaded from, if any

exception-string contains as much of the toString() of the underlying exception that resulted in this ClassNotFoundException as fits, if any

System Action: The statement cannot be executed. A DSNX961 message describing the error will be displayed on the MVS system console.

Programmer Response: Correct the condition reported by the *exception-string*.

SQLSTATE: 46103

-20213 STORED PROCEDURE *procedure-name* HAS RETURNED A DYNAMIC RESULT SET OF AN INVALID CLASS. PARAMETER *number* IS NOT A DB2 RESULT SET

Explanation: A Java Stored Procedure has returned a DYNAMIC RESULT SET parameter that is not an instance of the Java class that was used by the JDBC driver to represent result sets.

procedure-name identifies the external Java procedure whose returned parameter caused the error.

number indicates the position of the parameter whose returned class was not an instance of the Java class that is used by the JDBC driver to represent result sets.

System Action: The CALL statement fails.

Programmer Response: Recreate the Java method to make returned DYNAMIC RESULT SET parameters be instances of the class produced by the DB2 for OS/390 JDBC driver (COM/ibm/db2os390/sqlj/jdbc/DB2SQLJResultSet).

SQLSTATE: 46502

-20223 THE ENCRYPT_TDES OR DECRYPT FUNCTION FAILED. ENCRYPTION FACILITY NOT AVAILABLE *return-code, reason-code*

Explanation: The encryption facility is not available, or not able to service the encryption or decryption request.

System Action: The statement cannot be executed

Programmer Response: If the encryption facility is not installed, then install it before using the ENCRYPT_TDES or DECRYPT functions. If the encryption facility is installed, then verify that it is working correctly. *returncode* and *reason-code* may give further information on the regarding why this message was issued. If the encryption facility is not installed, then install it before using the ENCRYPT_TDES or DECRYPT functions. If the encryption facility is installed, then verify that it is working correctly. *returncode* and *reason-code* may give further information on the regarding why this message was issued. Consult *ICSF Application Programmers Guide*, Appendix A, for the ICSF Return Code and ICSF Reason Codes for further information.

SQLSTATE: 560BF

-20227 REQUIRED CLAUSE IS MISSING FOR ARGUMENT *number OF expression*

Explanation: The *expression* expression requires that a clause be specified for argument *number*.

- If *expression* is XMLATTRIBUTES, then an AS clause is required for the XML attribute name.
- If *expression* is XMLFOREST, then an AS clause is required for the XML element name.

System Action: The statement cannot be processed.

Programmer Response: Correct the statement by providing the required clause for the argument.

SQLSTATE: 42633

-20232 CHARACTER CONVERSION FROM CCSID *from-ccsid* TO *to-ccsid* FAILED WITH ERROR CODE *error-code* FOR TABLE *dbid.obid* COLUMN *column-number* REQUESTED BY *csect-name*

Explanation: A conversion error occurred during the conversion of a string to a different coded character set.

from-ccsid

identifies the coded character set of the string to be converted.

to-ccsid

identifies the coded character set to which it must be converted.

error-code

indicates the type of error as defined as follows:

- 8 - Length exception (for example, expansion required for PC MIXED data exceeds the maximum length of the string).
- 20 - Translate procedure error (for example, an error during Unicode/390 stage 2 conversions or an exit set the length control field of the string to an invalid value).
- 24 - The conversion services have not been setup correctly or the conversion is not supported.

dbid.obid

gives the database id and the table obid of the object with the conversion error. This could be either the target or the source of the conversion.

column-number

gives the column number of the failing object. This could be either the target or the source of the conversion.

csect-name

describes the reason codes returned from DB2. Reason codes returned from DB2 begin with 'DSN' and identify the context in which the conversion was requested. Values other than those that start DSN' are returned from other DB2 platforms and are described in the documentation for the platform.

System Action: The statement cannot be processed.

Programmer Response: If the error-code is 24 and the conversion request is correct, refer to Appendix B of *DB2 Installation Guide* for information on how to add conversion support. For all the other error-codes, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SQLSTATE: 57017

-20235 THE COLUMN *column-name* CANNOT BE ADDED OR ALTERED BECAUSE *table-name* IS A MATERIALIZED QUERY TABLE

Explanation: The alter table statement attempted to add or alter column *column-name* of materialized query table *table-name*. This is not allowed.

System Action: The statement could not be processed.

Programmer Response: Columns of materialized query tables cannot be added, altered, or dropped. Alter the materialized query table to become a regular table before adding, altering, or dropping a column.

SQLSTATE: 428FY

-20240 **INVALID SPECIFICATION OF A SECURITY LABEL COLUMN**
column-name **REASON CODE**
reason-code

Explanation: For a security label column the specification of an attribute in a CREATE TABLE, or ALTER TABLE, DECLARE GLOBAL TEMPORARY TABLE, or CREATE GLOBAL TEMPORARY TABLE statement may be invalid for one of the following reasons:

- The underlying data type of the security label column is not supported. A security label column must be defined as CHAR(8) for single-byte data.
- An edit procedure was specified for the table with a security label column.
- A security label column must be defined as NOT NULL WITH DEFAULT.
- A security label column cannot be defined for a created global temporary table.
- The data type of a security label column cannot be altered.
- A security label column cannot be defined for a table that is the source for a materialized query table.
- A check constraint cannot specify a security label column.

System Action: The statement cannot be executed.

Programmer Response: Correct the syntax and resubmit the statement.

SQLSTATE: 42963

-20248 **ATTEMPTED TO EXPLAIN A CACHED STATEMENT WITH STMTID OR STMTOKEN *ID-token* BUT THE REQUIRED EXPLAIN INFORMATION IS NOT ACCESSIBLE.**

Explanation: The EXPLAIN statement cannot be executed because the required explain information is not accessible due to one of the following reasons:

1. The SQL statement with specified ID or token has never been cached because dynamic statement caching was not on when the statement was executed.
2. The statement with specified ID or token was cached before but is not in cache anymore (it was either invalidated or removed from cache by LRU algorithm).
3. The current user is not authorized to explain the statement with specified ID or token.

System Action: The statement cannot be executed.

Programmer Response: Perform the following steps:

1. Check if dynamic statement caching is on and if the statement ID or token is correct. The EXPLAIN

statement cannot be executed if dynamic statement caching has never been turned on.

2. Re-execute (or re-prepare) the statement to be explained, find the updated statement ID or token, and explain it again.
3. Correct the authorization problem and re-execute the EXPLAIN statement.

SQLSTATE: 26501

-20249 **THE PACKAGE *package-name* NEEDS TO BE REBOUND IN ORDER TO BE SUCCESSFULLY EXECUTED (*token*)**

Explanation: The package needs to be rebound for one of the following reasons:

- Package *package-name* was bound on a system with an older maintenance level that is no longer supported. The package needs to be rebound on a system with a maintenance level that is supported.
- Package *package-name* was bound on a newer maintenance level, but it was sent to execute on a system with an older maintenance level. In this case, the APAR *token* needs to be applied to the server before executing this package.

System Action: The statement cannot be executed.

Programmer Response: Take the appropriate action as explained in the explanation.

SQLSTATE: 560C5

-20252 **DIAGNOSTICS AREA FULL. NO MORE ERRORS CAN BE RECORDED FOR THE NOT ATOMIC STATEMENT**

Explanation: A statement with the NOT ATOMIC CONTINUE ON SQLEXCEPTION clause encountered more errors than could be recorded in the diagnostics area. NOT ATOMIC processing with CONTINUE ON SQLEXCEPTION allows DB2 to continue processing a statement after one or more errors is encountered. DB2 will continue processing until it is no longer able to record errors in the diagnostic area (See the GET DIAGNOSTICS statement for information on how to retrieve error information). When DB2 is no longer able to record error diagnostics, processing of the statement is terminated, and this error is returned.

System Action: The statement is terminated.

Programmer Response: Analyze the warning and error conditions using the GET DIAGNOSTICS statement. Determine how to change the statement to eliminate or reduce the number of warnings and errors. It is up to the programmer to determine if a ROLLBACK or COMMIT should be issued for this message. Either is appropriate depending on the application logic.

SQLSTATE: 429BI

-20264 FOR TABLE *table-name*, *primary-auth-id* WITH SECURITY LABEL *primary-auth-id-seclabel*, IS NOT AUTHORIZED TO PERFORM *operation* ON A ROW WITH SECURITY LABEL *row-seclabel*. THE RECORD IDENTIFIER (RID) OF THIS ROW IS *rid-number*.

Explanation: *primary-auth-id* attempted an MLS READWRITE operation on a row without having the proper Multilevel Security (MLS) authorization. The RID identifies this row.

The RID may be *N when a RID identifier is not available for the row.

System Action: The operation that was attempted could not be performed.

Programmer Response: If this user is authorized to perform this operation, ensure that this user has been properly defined to MLS. If the row data needs to be viewed, use DSN1PRINT.

In the case of a view or cursor, where the primary authorization ID is able to access more rows than it can update or delete, you can add the WHERE clause to limit the rows accessed, based on the security label of the primary authorization ID. The security label can be retrieved using GETVARIABLE(SYSIBM.SECLABEL).

SQLSTATE: 42512

-20265 SECURITY LABEL IS *reason* FOR *primary-auth-id*

Explanation: User *primary-auth-id* has a blank security label, or the security label is not accessible. *reason* is BLANK or INACCESSIBLE.

System Action: The operation that was attempted could not be performed.

Programmer Response: Ensure the value that was specified for the security label of this user is a valid security label. If it is valid, then this error may be caused if the SECLABEL class in the Security Server has not been activated.

SQLSTATE: 42501

-20266 ALTER VIEW FOR *view-name* FAILED INFORMATION RETURNED: **SQLCODE:** *sqlcode*, **SQLSTATE:** *sqlstate*, **MESSAGE TOKENS** *token-list*

Explanation: An ALTER VIEW statement was issued for *view-name*, but the view cannot be successfully regenerated.

System Action: The statement cannot be processed.

SQLSTATE: 560C7

-20281 *primary-auth-id* DOES NOT HAVE THE MLS WRITE-DOWN PRIVILEGE

Explanation: This operation requires the Multilevel Security write-down privilege.

System Action: This operation cannot be performed.

Programmer Response: Ensure that the user has the MLS write-down privilege when write-down is in effect.

SQLSTATE: 42513

-20286 DB2 CONVERTED STRING *token-type* *token* FROM *from-ccsid* TO *to-ccsid*, AND RESULTED IN SUBSTITUTION CHARACTERS

Explanation: A conversion error occurred during the conversion of a string for *token-type* *token* to a different coded character set. One or more substitution characters have been placed in the string during the conversion process.

System Action: The statement cannot be processed.

Programmer Response: Ensure that the data that is provided to DB2 can be converted from *from-ccsid* to *to-ccsid* without data loss.

SQLSTATE: 428GB

-20289 INVALID STRING LENGTH UNIT *unit* SPECIFIED FOR FUNCTION *function-name*

Explanation: The statement invoked a built-in function using a string length unit that is not valid with the type of data that is provided to the function. This can occur for the following reasons:

- non-string data that is specified with an explicit length unit *unit* for the LENGTH function. A string length unit cannot be specified for non-string data.
- bit data or binary data was specified with *unit*. CODEUNITS16, or CODEUNITS32 are not valid with bit data or binary string data.
- graphic data was specified with OCTETS as the string length unit. OCTETS is not valid with graphic data.

System Action: The statement cannot be executed.

Programmer Response: Change the invocation of the function to remove the invalid string length unit or change it to a valid unit for the data type being processed.

SQLSTATE: 428GC

-30000 EXECUTION FAILED DUE TO A DISTRIBUTION PROTOCOL ERROR THAT WILL NOT AFFECT THE SUCCESSFUL EXECUTION OF SUBSEQUENT COMMANDS OR SQL STATEMENTS: REASON *reason-code* (*sub-code*)

Explanation: A DRDA protocol error has resulted which prevented successful execution of the current SQL statement. The error was such that it will not preclude the successful execution of further SQL statements.

System Action: The statement cannot be executed. The SQLCA is formatted. Message DSNL0311 or DSNL0321, which might contain additional diagnostic information, might be issued to the MVS console.

Programmer Response: Notify the DBA for assistance in analysis of the SQL statement which yielded this SQLCODE.

Problem Determination: The 'reason-code' identifies the DDM code point which represents the DDM reply message received from the remote server in response to the attempt to execute the SQL statement. These represent internal errors detected at the remote server or possibly, by the local DB2 functions.

The 'reason-code' value is the two-byte hexadecimal code point for the DDM reply message that represents the error and is one of the following:

- X'1254' - CMDCHKRM
- X'220A' - DSCINVRM
- X'220E' - DTAMCHRM
- X'1245' - PRCCNVRM
- X'2202' - QRYNOPRM
- X'220F' - QRYPOPRM
- X'2207' - RDBACCRM
- X'2204' - RDBNACRM
- X'124C' - SYNTAXRM

A two-byte 'sub-code' accompanies 'reason-codes' X'220A' (DSCINVRM), X'1245' (PRCCNVRM), and X'124C' (SYNTAXRM). In all other cases, the 'sub-code' is zero.

The 'sub-code' when nonzero, consists of two bytes such that the high-order byte indicates the site at which the error was detected. This is X'01' if the error was detected by the local DB2; it is X'02' if the error was detected by the remote server. The low-order byte is dependent on the 'reason-code' as follows:

1. Description Error Code (DSCERRCD) if 'reason-code' = X'220A' (DSCINVRM).
2. Syntax Error Code (SYNERRCD) if 'reason-code' = X'124C' SYNTAXRM).
3. Conversational Protocol Error Code (PRCCVNCD) if 'reason-code' = X'1245' (PRCCNVRM).

Refer to the *IBM Distributed Data Management (DDM) Reference Guide* for a detailed discussion of the semantics of the DDM terms DSCERRCD, SYNERRCD, and PRCCNVCD.

SQLSTATE: 58008

-30002 THE SQL STATEMENT CANNOT BE EXECUTED DUE TO A PRIOR CONDITION IN A CHAIN OF STATEMENTS

Explanation: An SQL statement was chained to PREPARE, but the PREPARE statement has received a warning SQLCODE that requires the program or end user to either re-issue the chained statement or issue a different SQL request. This error can occur only in a client/server environment.

- A distributed client using DRDA has chained an OPEN statement to a PREPARE, but the PREPARE statement received SQLCODE +495.

System Action: The statement cannot be executed as chained.

Programmer Response: The statement must be sent again as a separate request.

SQLSTATE: 57057

-30005 EXECUTION FAILED BECAUSE FUNCTION NOT SUPPORTED BY THE SERVER: LOCATION *location* PRODUCT ID *pppvrr* REASON *reason-code* (*sub-code*)

Explanation: The current SQL statement failed because the SQL statement was routed to a server that does not support the requested function. The error was such that it will not preclude the successful processing of further SQL statements.

System Action: The statement cannot be executed. The SQLCA is formatted.

Programmer Response: Notify the DBA for assistance in analyzing the SQL statement that prompted this SQL code.

Problem Determination: *location* identifies the name of the server that could not support the required database protocols to perform the requested function. The product identifier is in the form *pppvrrm*. It is an eight-byte field with alphanumeric characters, and identifies the product that could not support the function. *ppp* identifies the specific database product. *vv* identifies the product version. *rr* identifies the product release level. *m* identifies the product modification level.

Possible values for *pppvrrm*:

ppp DSN for z/OS, ARI for VM/VSE, SQL for Unix/Windows/NT, QSQ for iSeries, and JCC for Java

| **vv** Version number
 | **rr** Release level
 | **m** Modification level

| To correct the problem, first identify the function that is not supported. To determine what function was not supported, and why, refer to the *reason-code* that was specified. Here are the possible values for *reason-code*, and the functions that they correspond to:

- | **0010** LONG_STMTS
- | **0010** LONG255_IDS
- | **0030** EXTENDED_DESCRIBE
- | **0040** EXTENDED_DIAGNOSTICS
- | **0050** KEEP_DYNAMIC
- | **0060** MULTI_ROW_FETCH
- | **0070** MULTI_ROW_INSERT
- | **0080** SQL_CANCEL
- | **0090** SCROLLABLE_CURSORS
- | **0100** CURSOR_ATTRIBUTES
- | **0110** MONITORING
- | **0120** SELECT_WITH_INSERT
- | **0130** DATA_ENCRYPTION
- | **0140** PACKAGE_PATH

| Lastly, you may use the *sub-code* value to further identify the problem. When non-zero, the *sub-code* consists of a one-byte code to indicate how the error was detected in the network:

- | • If '01'x, then the local DB2 that is acting as the requester detected the error. The LOCATION and PRDID identify the server in error.
- | • If '02'x, then the server detected the error. The LOCATION and PRDID identify the location and level of the local DB2 server.
- | • If '03'x, then an intermediate server (hop site) detected the error. The error, the LOCATION, and PRDID identify the server in error.
- | • If '04'x, then an intermediate server (hop site) detected the error. The error, the LOCATION, and PRDID identify the server in error.

| **SQLSTATE:** 56072

-30020 EXECUTION FAILED DUE TO A DISTRIBUTION PROTOCOL ERROR THAT CAUSED DEALLOCATION OF THE CONVERSATION: REASON
<reason-code (sub-code)>

Explanation: A DRDA protocol error has occurred that prevented the successful execution of the current SQL

statement or command, as well as any subsequent SQL statements.

The 'reason-code' identifies the DDM code point which represents the DDM reply message received from the remote server in response to the attempt to execute the SQL statement. These represent internal errors detected at the remote server site or possibly, by the local DB2 functions.

The 'reason-code' value is the two-byte hexadecimal code point for the DDM reply message that represents the error and is one of the following:

- X'1232' - AGNPRMRM
- X'1254' - CMDCHKRM
- X'220A' - DSCINVRM
- X'220E' - DTAMCHRM
- X'0010' - FDODSC
- X'1218' - MGRDEPRM
- X'1245' - PRCCNVRM
- X'241A' - QRYDSC
- X'2202' - QRYNOPRM
- X'220F' - QRYPOPRM
- X'2207' - RDBACCRM
- X'2204' - RDBNACRM
- X'124C' - SYNTAXRM

A two byte sub-code accompanies 'reason codes'. The sub-code, when nonzero, consists of two bytes such that the high-order byte indicates the site at which the error was detected. This is X'01' if the error was detected by the local DB2; It is X'02' if the error was detected by the remote server. The low-order byte is dependent upon the 'reason code' as follows:

- Description Error Code (DSCERRCD) if reason code= X'220A' (DSCINVRM).
- Syntax Error Code (SYNERRCD) if reason code = X'124C' (SYNTAXRM).
- Conversational Protocol Error Code (PRCCVNCD) if reason code = X'1245' (PRCCNVRM).
- Manager Dependency Error Code (DEPERRC) if reason code = X'1218' (MGRDEPRM).

Refer to *IBM Distributed Data Management (DDM) Reference Guide* for a detailed discussion of the semantics of the DDM terms DSCERRCD, SYNERRCD, PRCCVNCD, and DEPERRC.

System Action: The statement cannot be executed. The SQLCA is formatted and the conversation on which the error was detected is deallocated. Message DSNL0311 or DSNL0321, which might contain additional diagnostic information, might be issued to the MVS console.

Programmer Response: The connection to the server has been broken, and the server has, therefore, rolled back the unit of work. In this case, the only SQL statement that may be successfully executed is ROLLBACK. However, if the requester detects this error on a COMMIT, then it is unknown whether the unit of work was committed or rolled back at the server.

SQLSTATE: 58009

-30021 EXECUTION FAILED DUE TO A DISTRIBUTION PROTOCOL ERROR THAT WILL AFFECT THE SUCCESSFUL EXECUTION OF SUBSEQUENT COMMANDS OR SQL STATEMENTS: MANAGER *manager* AT LEVEL *level* NOT SUPPORTED ERROR

Explanation: A DRDA error occurred that prevented the successful execution of the current SQL statement or command and any subsequent SQL statements.

A manager-level conflict was detected during the processing of the DDM EXCSAT command. Refer to the *IBM Distributed Data Management (DDM) Reference Guide* for a detailed description of EXCSAT processing and errors.

The *manager* value is the 2-byte hexadecimal code point of the DDM manager class identified as not supported in the EXCSATRD that reported the error. Refer to the DDM term MGRLVL in the *IBM Distributed Data Management (DDM) Reference Guide* for the 2-byte hexadecimal values.

The *level* value is the 2-byte hexadecimal value of the manager level identified as not supported in the EXCSATRD that reported the error. Refer to the DDM term MGRLVL in the *IBM Distributed Data Management (DDM) Reference Guide* for the 2-byte hexadecimal values.

System Action: The statement cannot be executed.

Programmer Response: Notify the system programmer for analysis of the condition that caused this SQLCODE.

SQLSTATE: 58010

-30025 EXECUTION FAILED BECAUSE FUNCTION IS NOT SUPPORTED BY THE SERVER WHICH CAUSED TERMINATION OF THE CONNECTION: LOCATION *location* PRODUCT ID *pppvrr* REASON *reason-code* (*sub-code*)

Explanation: The current SQL statement failed because the SQL statement was routed to a server that does not support the requested function. A new connection is required to allow the successful execution of further SQL statements.

System Action: The statement cannot be executed. The current unit of work is rolled back. The SQLCA is formatted.

Programmer Response: Notify the DBA for assistance in analyzing the SQL statement that prompted this SQL code.

Problem Determination: *location* identifies the name of the server that could not support the required

database protocols to perform the requested function. The product identifier is in the form *pppvrrm*. It is an eight-byte field with alphanumeric characters, and identifies the product that could not support the function. *ppp* identifies the specific database product. *vv* identifies the product version. *rr* identifies the product release level. *m* identifies the product modification level.

Possible values for *pppvrrm*:

- ppp** DSN for z/OS, ARI for VM/VSE, SQL for Unix/Windows/NT, QSQ for iSeries, and JCC for Java
- vv** Version number
- rr** Release level
- m** Modification level

To correct the problem, first identify the function that is not supported. To determine what function was not supported, and why, refer to the *reason-code* that was specified. Here are the possible values for *reason-code*, and the functions that they correspond to:

- 0010** LONG_STMTS
- 0010** LONG255_IDS
- 0030** EXTENDED_DESCRIBE
- 0040** EXTENDED_DIAGNOSTICS
- 0050** KEEP_DYNAMIC
- 0060** MULTI_ROW_FETCH
- 0070** MULTI_ROW_INSERT
- 0080** SQL_CANCEL
- 0090** SCROLLABLE_CURSORS
- 0100** CURSOR_ATTRIBUTES
- 0110** MONITORING
- 0120** SELECT_WITH_INSERT
- 0130** DATA_ENCRYPTION
- 0140** PACKAGE_PATH

Lastly, you may use the *sub-code* value to further identify the problem. When non-zero, the *sub-code* consists of a one-byte code to indicate how the error was detected in the network:

- If '01'x, then the local DB2 that is acting as the requester detected the error. The LOCATION and PRDID identify the server in error.
- If '02'x, then the server detected the error. The LOCATION and PRDID identify the location and level of the local DB2 server.
- If '03'x, then an intermediate server (hop site) detected the error. The error, the LOCATION, and PRDID identify the server in error.

- If '04'x, then an intermediate server (hop site) detected the error. The error, the LOCATION, and PRDID identify the server in error.

SQLSTATE: 56073

-30030 COMMIT REQUEST WAS UNSUCCESSFUL, A DISTRIBUTION PROTOCOL VIOLATION HAS BEEN DETECTED, THE CONVERSATION HAS BEEN DEALLOCATED. ORIGINAL SQLCODE=*original-sqlcode* AND ORIGINAL SQLSTATE=*original-sqlstate*

Explanation: The application requested COMMIT operation was unsuccessful and the response from the remote server and the SQLCODE that was returned from the remote server are inconsistent. For example, the reply message from the remote server indicates that a COMMIT operation did not complete successfully but the SQLCODE returned from the remote server was greater than or equal to zero. The unit of work has been rolled back and the connection with the remote server has been deallocated.

System Action: An alert was generated. A DSNL0311 message may have been written to the console. Refer to the description of this message for further information.

The SQLCODE returned by the remote server is replaced with -30030 and the SQLSTATE returned by the AS is replaced with '158013' and the connection with the remote server has been deallocated.

The SQLCODE and SQLSTATE values that were returned from the remote server are stored in the SQLERRM field in a string of the following format: 'original-sqlcode 'FF'X original-sqlstate'

Programmer Response: Notify the system programmer for assistance in analyzing the trace data that was generated.

SQLSTATE: 58013

-30040 EXECUTION FAILED DUE TO UNAVAILABLE RESOURCES THAT WILL NOT AFFECT THE SUCCESSFUL EXECUTION OF SUBSEQUENT COMMANDS OR SQL STATEMENTS. REASON *reason-code* TYPE OF RESOURCE *resource-type* RESOURCE NAME *resource-name* PRODUCT ID *pppvrrm* RDBNAME *rdbname*

Explanation: The SQL statement or command requires a non RDB resource that is currently unavailable. The *reason-code* identifies why the resource identified by the *resource-type* and *resource-name* is unavailable. The product, product level, and RDB are identified.

Values for *reason-code*

This is product specific and can be found in the remote server documentation.

Values for *resource-type*

Two byte hexadecimal number defined as follows:

This is product specific and can be found in the remote server documentation.

Values for *resource-name*

Variable length field with alphanumeric characters and a maximum length of 35 bytes.

Values for *pppvrrm*

Eight-byte field with alphanumeric characters defined as follows:

ppp..... DSN for OS/390, ARI for SQL/DS SQL and QSQ for AS/400 (3 bytes)

vv..... version number (2 bytes)

rr..... release level (2 bytes)

m..... modification level (1 byte)

Values for *rdbname*

Sixteen-byte field with the RDBNAME.

System Action: The statement cannot be processed. The local DB2 is disconnected from the remote server.

Programmer Response: Verify the identify of the resource that was not available. The reason the resource is unavailable is identified by the *reason-code*.

Collect the following diagnostic items to help determine the cause of the unavailable resource.

- Console output from the system identified by RDBNAME, and a listing of SYSLOG data set for the period of time spanning the failure.
- Information described for the reason code received.

SQLSTATE: 57012

-30041 EXECUTION FAILED DUE TO UNAVAILABLE RESOURCES THAT WILL AFFECT THE SUCCESSFUL EXECUTION OF SUBSEQUENT COMMANDS AND SQL STATEMENTS. REASON *<reason-code>* TYPE OF RESOURCE *<resource-type>* RESOURCE NAME *<resource-name>* PRODUCT ID *<pppvrrm>* RDBNAME *<rdbname>*

Explanation: The SQL statement or command requires a non RDB resource that is currently unavailable. The *<reason-code>* identifies why the resource identified by the *<resource-type>* and *<resource-name>* is unavailable. The product, product level, and RDB are identified.

Values for *<reason-code>*

-30050 • -30060

Four byte binary number that is product specific. This can be found in the remote server documentation.

Values for <resource-type>

Two byte hexadecimal number that is product specific. This can be found in the remote server documentation.

Values for <resource-name>

Variable length field with alphanumeric characters and a maximum length of 35 bytes.

Values for <pppvvrrm>

Eight byte field with alphanumeric characters defined as follows:

ppp..... DSN for DB2, ARI for SQL/DS, SQL for OS/2 and QSQ for AS/400 (3 bytes)

vv..... version number (2 bytes)

rr..... release level (2 bytes)

m..... modification level (1 byte)

Values for <rdbname>

Sixteen byte field with the RDBNAME.

System Action: The statement cannot be executed. The local DB2 is disconnected from the remote server.

Programmer Response: Verify the identity of the resource that was not available. The reason the resource is unavailable is identified by the reason-code.

Collect the following diagnostic items to help determine the cause of the unavailable resource.

- Console output from the system identified by RDBNAME, and a listing of SYSLOG data set for the period of time spanning the failure.
- Information described for the <reason-code> received.

SQLSTATE: 57013

-30050 *<command-or-SQL-statement-type>*
**COMMAND OR SQL STATEMENT
INVALID WHILE BIND PROCESS IN
PROGRESS**

Explanation: A remote command or remote SQL execution was attempted while a remote bind was in progress. The only commands allowed during bind are, BIND STATEMENT, END BIND, ROLLBACK, or COMMIT.

System Action: The request is rejected. The local DB2 is disconnected from remote server.

Programmer Response: Ensure the remote bind has completed before attempting to execute an SQL statement or process a remote command. COMMIT and ROLLBACK will terminate the bind processing.

SQLSTATE: 58011

-30051 **BIND PROCESS WITH SPECIFIED
PACKAGE NAME AND CONSISTENCY
TOKEN NOT ACTIVE**

Explanation: Binding of a statement or end bind was attempted while the package was not undergoing bind processing.

System Action: The bind statement request or end bind request is rejected. The local DB2 is disconnected from the remote server.

Programmer Response: Ensure that the server processing the bind request was not abending when this request was being processed, or that the package name hasn't changed before terminating the remote bind package request.

SQLSTATE: 58012

-30052 **PROGRAM PREPARATION
ASSUMPTIONS ARE INCORRECT**

Explanation: The program preparation assumptions in effect for binding a statement (i.e. BINDSQLSTT command) are incorrect.

System Action: The statement is rejected.

Programmer Response: The creation of the package following this error is dependent on the package creation options specified at begin bind time.

SQLSTATE: 42932

-30053 **OWNER AUTHORIZATION FAILURE**

Explanation: An authorization error associated with the package owner is detected. The AS, for example, has determined that the binder has specified a package owner that the binder has no authorization to specify.

System Action: The begin bind request is rejected.

Programmer Response: Correct the authorization problem and reissue the request.

SQLSTATE: 42506

-30060 **RDB AUTHORIZATION FAILURE**

Explanation: The user is not authorized to access an RDB.

System Action: The request is rejected.

Programmer Response: Correct the authorization problem and resubmit the job.

SQLSTATE: 08004

-30061 RDB NOT FOUND

Explanation: An attempt was made to access an RDB which cannot be found. This usually means that a requester specified the server location name incorrectly. The server responded by indicating that the requester's specification of the server location name is incorrect. Requester or server changes are needed to make the location names consistent. Location names for DB2 systems are defined in the BSDS DDF record and are also in the DSNL004I console message when DDF is started. For more information about defining location names, see Part 3 of *DB2 Installation Guide*.

System Action: The request is not processed.

Programmer Response: Ensure the RDB name was correctly specified and resubmit the job.

SQLSTATE: 08004

-30070 command COMMAND NOT SUPPORTED ERROR

Explanation: The target does not support a particular command. The error causes termination of the connection between the local DB2 and the remote server.

Values for *command*

Two byte hexadecimal DDM code point.

System Action: The command is rejected. The local DB2 is disconnected from the remote server.

Programmer Response: Ensure the proper command was issued.

SQLSTATE: 58014

-30071 object-type OBJECT NOT SUPPORTED ERROR

Explanation: The target does not support a particular object. The error causes the termination of the connection between the local DB2 and the remote server.

Values for *object-type*

Two byte hexadecimal DDM code point.

System Action: The command/SQL statement is rejected. The local DB2 is disconnected from the remote server.

Programmer Response: Ensure the object has been correctly specified and resubmit the job or reissue the command.

SQLSTATE: 58015

-30072 parameter subcode PARAMETER NOT SUPPORTED ERROR

Explanation: A particular parameter is not supported by either the application requester or the remote server.

Values for *parameter*

Two byte hexadecimal DDM code point.

Values for *subcode*

Two byte hexadecimal number defined as follows: This subcode is composed of two distinct parts, but may optionally be zero. The high-order byte (when not zero) indicates the site at which the error was detected. This is X'01' if the error was detected by the local DB2; it is X'02' if the error was detected by the remote server. The low order byte is always zero.

Common parameters that are not supported include:

X'2450'

Usually this means that the server does not support the attribute clause on prepare.

System Action: The command/SQL statement is rejected. A disconnect has occurred.

Programmer Response: The connection to the server has been broken, and the server has therefore rolled back the unit of work. In this case, the only SQL statement that may be successfully executed is ROLLBACK. However, if the requester detects this error on a COMMIT, then it is unknown whether the unit of work was committed or rolled back at the server.

SQLSTATE: 58016

-30073 parameter subcode PARAMETER VALUE NOT SUPPORTED ERROR

Explanation: The specified parameter value is not supported by either the local DB2 or the remote server.

The *parameter*, is a 2-byte hexadecimal DDM code point. See *IBM Distributed Data Management (DDM) Reference Guide* for a definition of the valid code points. Common values for *parameter* include:

X'0035' Usually means that a DB2 server does not support the single-byte coded character set identifier (CCSID) sent by the requester, or a DB2 requester does not support the single-byte CCSID received from a server. See X'119C' for more information.

X'1144' DRDA servers return this code point when a DB2 client specifies a version for a package and the DRDA server does not support versions.

X'119C'

If the subcode information contains X'01', the requester does not support the single-byte

CCSID that the server wants to use. If the subcode information contains X'02', the server does not support the single-byte CCSID that the requester wants to use.

Determine the single-byte CCSIDs for the requester and server systems. The single-byte CCSID for DB2 subsystems is defined in DSNHDECP. One or both partners might be using an incorrect CCSID, or support might need to be added. See *DB2 Installation Guide* for more information on CCSIDs.

X'147A'

DB2 servers can return this code point when a numeric input host variable is not within the range that DB2 supports. See the explanation of SQLCODE -406 for more information.

X'14AC'

DB2 servers return this code point when a DRDA client requests an authentication mechanism that is not supported by the DB2 server. See the explanation of DB2 reason code 00D3010E for more information.

X'2110'

Usually means that a requester specified the server location name incorrectly. The server responded by indicating that the requester's specification of the server location name is incorrect, and the length of the location name is longer than that supported by the server. Requester or server changes are needed so the location names are consistent. Location names for DB2 systems are defined in the BSDS DDF record and can also be seen in the DSNL004I console message when DDF is started. See Part 3 of *DB2 Installation Guide* for more information about defining location names.

X'2120' Usually means that the server does not support the use of double quote string delimiters in SQL statements. DB2 COBOL applications can use double quote string delimiters in SQL statements. This requires that the program be precompiled with the SQLDELIM(QUOTESQL) option. If the server product does not support double quote SQL statement string delimiters, then the program must be modified to use single quote SQL string delimiters and be precompiled with the SQLDELIM(APOSTSQL) option.

X'2121' Usually means that there is a semantic error with the string that specifies the character used as a decimal delimiter in SQL statements.

X'213F'

Means that the server was processing a bind or rebind command that specified an unsupported value for the DYNAMICRULES bind parameter. If the server is a DB2 Version

3 system, specify DYNAMICRULES(RUN) or omit the DYNAMICRULES parameter.

The 'subcode', which is a 2-byte hexadecimal number, consists of two distinct parts and can optionally be zero. The high-order byte (when not zero) indicates the site at which the error was detected. If the error was detected by the local DB2, it is X'01'. If the error was detected by the remote server, it is X'02'. The low-order byte is always zero.

System Action: The command or SQL statement is rejected. A disconnect occurred.

Programmer Response: The connection to the server was broken, and the server rolled back the unit of work. The only SQL statement that can be successfully executed is ROLLBACK. However, if the requester detects this error on a COMMIT, then it is unknown whether the unit of work was committed or rolled back at the server.

SQLSTATE: 58017

-30074 REPLY MESSAGE WITH *codepoint* (svrcod) NOT SUPPORTED ERROR

Explanation: A reply message *codepoint* is not recognized or the reply message *SVRCOD* is not recognized. The error does not affect the processing of subsequent DRDA commands and SQL statements issued by the application program.

Values for *codepoint*

- The *codepoint* is a two-byte hexadecimal value that represents a DDM reply message. *IBM Distributed Data Management (DDM) Reference Guide* defines the valid *codepoints* for reply messages.

Values for *SVRCOD*

- The *SVRCOD* is a one-byte hexadecimal value which represents the reply messages severity code. *IBM Distributed Data Management (DDM) Reference Guide* defines the valid *SVRCOD* for reply messages.

System Action: Processing continues.

Programmer Response: The cause of this error may be a mismatch in source and target manager levels or might be an internal error.

SQLSTATE: 58018

-30080 COMMUNICATION ERROR *code* (*subcode*)

Explanation: A SNA communications error was detected. *VTAM for MVS/ESA Programming for LU 6.2* contains the valid *code* and *subcode* values that can appear in this message.

- *code* is VTAM's primary LU6.2 return code (RCPRI).
- *subcode* takes one of the following forms:
 - rcsec-sense

– rcsec

The *rcsec* portion of *subcode* is VTAM's secondary LU6.2 return code (RCSEC).

The *sense* portion of *subcode* is VTAM's sense code. See Part 6, "SNA codes," on page 1341 for descriptions of sense codes that are often associated with SNA network definition errors.

System Action: The statement is not executed. The application was disconnected from the server because of a communication failure. A DSNL500I message containing additional diagnostic information might be issued to the MVS console.

Programmer Response: Review the diagnostic information described in *VTAM for MVS/ESA Programming for LU 6.2* for the particular LU6.2 return codes. Consult with a communications expert to determine the cause of the communication failure.

SQLSTATE: 08001

-30081 *prot* **COMMUNICATION ERROR DETECTED. API=*api*, LOCATION=*loc*, FUNCTION=*func*, ERROR CODES=*rc1 rc2 rc3***

Explanation: A communications error was detected while communicating with a remote client or server.

prot Identifies the communication protocol that encountered the error. Currently, 'TCP/IP' is the only possible value.

api Identifies the communication application programming interface (API) used by DB2. Currently, 'SOCKETS' is the only possible value.

loc The network location of the partner system.
For TCP/IP partners, this field contains the dotted decimal IP address of the partner.

func The communication function that failed.
For TCP/IP partners, this field identifies name of the socket call that failed.

rc1 The first return code indicator.
For TCP/IP partners, this field contains the TCP/IP *return code* in decimal format. The *return code* values are documented in *z/OS UNIX System Services Programming: Assembler Callable Services Reference*.

rc2 The second return code indicator.
For TCP/IP partners, this field contains the TCP/IP *reason code* in decimal format. The *reason code* values are documented in *z/OS UNIX System Services Programming: Assembler Callable Services Reference*.

rc3 The third return code indicator.

For TCP/IP partners, this field contains zero.

System Action: The statement is not executed. The application is disconnected from the server.

Programmer Response: Consult with a communications expert to determine the cause of the communication failure.

SQLSTATE: 08001

-30082 **CONNECTION FAILED FOR SECURITY REASON** *reason-code (reason-string)*

Explanation: The attempt to connect to a remote database server was rejected due to invalid or incorrect security information. The cause of the security error is described by the *reason-code* and *reason-string* values.

The possible values for *reason-code* and *reason-string* appear below:

- 1 (PASSWORD EXPIRED) -- the password used to connect to the remote server has expired.
- 2 (PASSWORD INVALID) -- the password used to connect to the remote server does not match the password stored at the remote server.
- 3 (PASSWORD MISSING) -- the remote server rejected the connection request because the request did not include a password.
- 4 (PROTOCOL VIOLATION) -- the remote server rejected the connection request because the request did not contain the proper security information. Error messages or trace records should be produced by the server system to explain the nature of the security violation.
- 5 (USER-ID MISSING) -- the remote server rejected the connection request because the request did not specify a user-id.
- 6 (USER-ID INVALID) -- the user-id specified in the connection request is not defined at the remote server system.
- 7 (USER-ID REVOKED) -- the user-id specified in the connection request has been revoked.
- 15 (SECURITY FAILURE:*secchkcd:svcerrno*)—Authentication failed at the remote server system. Refer to the *IBM Distributed Data Management (DDM) Reference Guide* for a detailed discussion of the semantics of the DDM terms SECCHKCD and SVCERRNO.
- 16 (NEW PASSWORD INVALID) -- the password specified on a change password request did not meet the server's requirements.
- 17 (UNSUPPORTED FUNCTION) -- the security mechanism specified by the client is invalid for this server. Some typical examples:
 - The client is configured to send an Already Verified userid but the server does not support

Already Verified userids. Client or server changes must be made to correct the inconsistency.

- DB2 for z/OS server acceptance of Already Verified userids over TCP/IP connections is controlled by the TCPALVER value of the DSNTIP5 installation panel (DSN6FAC TCPALVER).
 - DB2 for z/OS client usage of Already Verified userids is controlled by the SECURITY_OUT column of the SYSIBM.LUNAMES or SYSIBM.IPNAMES table.
- The client is configured to use one of the following security mechanisms but the server does not support the mechanism:
- Encrypted userid and encrypted security-sensitive data.
 - Encrypted userid, encrypted password, and encrypted security-sensitive data.

Client changes must be made to correct the inconsistency.

- DB2 for z/OS server acceptance of Already Verified userids over TCP/IP connections is controlled by the TCPALVER value of the DSNTIP5 installation panel (DSN6FAC TCPALVER).
 - DB2 for z/OS client usage of Already Verified userids is controlled by the SECURITY_OUT column of the SYSIBM.LUNAMES or SYSIBM.IPNAMES table.
- The client is configured to use one of the following security mechanisms but the server does not support the mechanism:
- Encrypted userid and encrypted security-sensitive data.
 - Encrypted userid, encrypted password, and encrypted security-sensitive data.

Client changes must be made to correct the inconsistency.

- DB2 for z/OS client usage of encryption security mechanism is controlled by the SECURITY_OUT column of the SYSIBM.IPNAMES table.
- The client sent a new password value to a server that does not support the DRDA change password function.
 - The client sent DCE authentication information to a server that does not support DCE.
 - The client is configured to send an Already Verified userid but the server does not support Already Verified userids. Client or server changes must be made to correct the inconsistency.
- DB2 for z/OS server acceptance of Already Verified userids over TCP/IP connections is controlled by the TCPALVER value of the DSNTIP5 installation panel (DSN6FAC TCPALVER).

- DB2 for z/OS client usage of Already Verified userids is controlled by the SECURITY_OUT column of the SYSIBM.LUNAMES or SYSIBM.IPNAMES tables.

System Action: The attempt to connect to the remote database server fails. If the server system is a DB2 UDB for z/OS server, a DSNL030I message at the server system describes the cause.

Programmer Response: DB2 uses the communications database (CDB) to control network security functions. Make the appropriate changes to the CDB to correct the security failure.

SQLSTATE: 08001

-30090 REMOTE OPERATION INVALID FOR APPLICATION EXECUTION ENVIRONMENT

Explanation: An update operation or a dynamic commit or rollback was attempted at a server that was supporting an application that was in a read-only execution environment (IMS or CICS).

System Action: The request is rejected.

Programmer Response: Do not attempt to update data or issue dynamic commits or rollbacks from IMS or CICS applications that are accessing remote data.

SQLSTATE: 25000

-30104 ERROR IN BIND OPTION *option* AND BIND VALUE *value*.

Explanation: While processing the bind parameters that were passed from the requester site, either the bind option or the bind value is not acceptable to the server database, or the option/value pair is not appropriate.

Programmer Response: The BIND or REBIND command failed. Examine the command options and values, determine the error, and resubmit the command.

SQLSTATE: 56095

-30105 BIND OPTION *option1* IS NOT ALLOWED WITH BIND OPTION *option2*

Explanation: While processing the bind parameters that were passed from the requester site, it was found that there is a conflict in bind options that are mutually exclusive.

Programmer Response: The BIND or REBIND command failed. Examine the command options, determine the cause of the conflict, and resubmit the command.

SQLSTATE: 56096

**-30106 INVALID INPUT DATA DETECTED FOR
A MULTIPLE ROW INSERT
OPERATION. INSERT PROCESSING IS
TERMINATED**

Explanation: An error was detected with the input data for one row of a multiple row INSERT operation. No further rows will be inserted. For an atomic operation, all inserted rows are rolled back. For a non-atomic operation, rows inserted successfully before the row containing the invalid input data was encountered are not rolled back.

System Action: The statement cannot be processed.

Programmer Response: Correct the row containing the invalid input data and submit the multiple-row INSERT statement again for the rows that did not get inserted.

SQLSTATE: 22527

Part 3. DB2 messages

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Chapter 3. DB2 Messages

Refer to Part 1, "Introduction," on page 1 for a description of message types and message numbering conventions.

Unless the message is issued by a subcomponent operating outside the DB2 environment, messages are preceded by a *command prefix* that is defined during system installation. The command prefix is not shown in the message text.

In the TSO attachment facility, the user can control whether message IDs are displayed. To see them, type 'PROFILE MSGID'. To suppress them, type 'PROFILE NOMSGID'.

Chapter 4. DSN... Messages

There are two types of messages in this chapter:

1. Messages that are written to a trace file. These are seen only if the trace is turned on (that is, ddname DSNTRACE was allocated to SYSOUT or the TSO terminal).
2. Messages that are returned by a DB2 stored procedure. These are seen only as a parameter that is returned by the stored procedure.

DSNA... messages share a basic structure. Here are the message elements, listed in order:

1. Message number (DSNAnna).
2. The name of the CSECT responsible for writing the message.
3. TCB address of the task currently executing.
4. A series of tokens and token-explanations unique to each message.

Note: The intent of these messages is to aid IBM development and the IBM Support Center. They contain information that might not be meaningful except to IBM.

DSNA002E DSNACA00 TCB=address SYSTEM ERROR - FOUND UNEXPECTED THREAD

Explanation: The DB2 call attachment facility control block, the CAB, indicated that a thread was present when none should have been present. This is a CAF system error.

This message is issued by the following CSECT:
DSNACA00

System Action: This message immediately precedes an 04E abend, with reason code 00C10002.

System Programmer Response: Collect a SYSUDUMP and DSNTRACE trace stream.

Programmer Response: Refer the problem to your system programmer.

Problem Determination: Contact your IBM Support Center.

DSNA201E DSNACA00 TCB=address CANNOT USE 'CONNECT', ALREADY CONNECTED TO DB2

Explanation: A CONNECT request was received but a connection to DB2 already existed for the TCB identified by 'address' in the message. This is a CAF error (application program error). The message is accompanied by return code (R15) 200 and code (R0) 00C10201.

System Action: No new connection is made to DB2 and an error return and reason code are issued. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: You must DISCONNECT the previous connection before you can re-CONNECT. Correct the logic in your code.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA202E DSNACA00 TCB=address CANNOT USE 'OPEN', PRIOR OPEN OR SQL ALREADY CONNECTED APPLICATION TO DB2

Explanation: An OPEN request was received but a DB2 thread had already been created for the specified TCB. This is a user error. The message is accompanied by return code (R15) 200 and code (R0) 00C10202.

System Action: No new DB2 thread is created and an error return and reason code are issued. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Your application program had already (explicitly or implicitly) established an OPEN level connection to DB2. You cannot do this again until the original OPEN is terminated. 'Explicit' OPENS occur when an application issues the call attachment facility OPEN request. 'Implicit' OPENS occur when an application issues SQL statements before a DB2 connection was established. Correct the logic in your application program.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA203E DSNACA00 TCB=address CANNOT USE 'CLOSE', THERE WAS NO 'OPEN' IN EFFECT

Explanation: A CLOSE request was received but no OPEN level connection (implicit or explicit) existed for this task. This is a user error. The message is accompanied by return code (R15) 200 and code (R0) 00C10203.

System Action: No CLOSE is performed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Correct the logic in your application. Do not issue CLOSE unless an explicit OPEN has been performed. 'Explicit' OPENS occur when an application issues the call attachment facility OPEN request.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA204E DSNACA00 TCB=address CANNOT USE 'DISCONNECT', THERE WAS NO 'CONNECT' IN EFFECT

Explanation: A DISCONNECT request was received but no DB2 connection had been established. This is a user error. The message is accompanied by return code (R15) 200 and code (R0) 00C10204.

System Action: No DISCONNECT has been performed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Correct the logic in your application. Do not issue DISCONNECT unless a CONNECT has been performed.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA205E DSNACA00 TCB=address CANNOT USE 'TRANSLATE', THERE WAS NO CONNECTION TO DB2 OR NOTHING TO TRANSLATE

Explanation: A TRANSLATE request was received but no data was available for translation. You must have valid DB2 call attachment facility control structures before you can make a TRANSLATE request. Control structures are built when you issue explicit or implicit connection requests. This is a user error. The message

is accompanied by return code (R15) 200 and code (R0) 00C10205.

System Action: No TRANSLATE is performed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Correct the logic in your application. Do not issue TRANSLATE unless a DB2 connection has been attempted.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA206E DSNACA00 TCB=address WRONG NUMBER OF PARMS OR VL BIT OFF

Explanation: An erroneous DB2 call attachment facility request was received. The request had too many or too few parameters and could not be processed. The message is accompanied by return code (R15) 200 and code (R0) 00C10206.

System Action: The previous request was not processed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Correct the logic in your application. Be sure that any parameter list passed to the DB2 call attachment facility has the correct number of parameters for the individual call, and that the high order (VL) bit is turned on to end the parameter list.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA207E DSNACA00 TCB=address DID NOT RECOGNIZE ACTION PARAMETER - parm

Explanation: An unrecognized action request type or parameter was received by the DB2 call attachment facility and could not be processed. The allowable action request types are CONNECT, OPEN, CLOSE, DISCONNECT, and TRANSLATE. For allowable parameters, refer to the CAF section in *DB2 Application Programming and SQL Guide*. This message is accompanied by return code (R15) 200 and code (R0) 00C10207.

System Action: Control returns to the caller. Your request was not processed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Correct the logic in your

application. Check the spelling of the action parameter type or keyword on the previous request passed to the DB2 call attachment facility. The action parameter type you passed is listed in the parm field of the DSNA800I trace message. If the error is not the action parameter, the parameter in error is listed in the parm field of this message.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA208E DSNACA00 TCB=address CANNOT HAVE 2 SSIDS (ssid1 AND ssid2) FROM 1 TCB

Explanation: An OPEN request was received specifying a different subsystem identifier (ssid2) than the previous CONNECT request (ssid1). Your task can only be connected to a single DB2 subsystem. The message is accompanied by return code (R15) 200 and code (R0) 00C10208.

System Action: Control returns to the caller. Your request was not processed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Specify the correct DB2 subsystem identifier on both the OPEN and CONNECT requests.

Problem Determination: See a DSNTRACE trace stream to understand the context of this message.

DSNA209E DSNACA00 A STORED PROCEDURE ISSUED AN EXPLICIT CALL TO DSNALI

Explanation: A stored procedure issued an explicit call to DSNALI. This is not allowed. Return code 200 in register 15 and code 00C10209 in register 0 accompany this message.

System Action: Control returns to the caller. The request was not processed. The DB2 call attachment facility is ready for more input.

System Programmer Response: Refer the problem to the programmer using the DB2 call attachment facility.

Programmer Response: Remove explicit calls to DSNALI from the application program.

Problem Determination: See a DSNTRACE trace job stream to understand the context of this message.

DSNA301I THE VALUE *parm-value* FOR PARAMETER *parm-name* IS NOT VALID

Explanation: The stored procedure DSNACICS could not run because one of the input parameters contains an incorrect value.

Severity: 12

System Action: The stored procedure DSNACICS terminates without calling the CICS transaction.

Programmer Response: Correct the input parameter value specified on the SQL CALL statement.

System Programmer Response: Ensure that the user exit DSNACICX sets the parameter to a valid value.

DSNA302I THE REQUIRED INPUT PARAMETER *parm-name* CONTAINS NULLS

Explanation: The stored procedure DSNACICS could not run because one or more of the required input parameters contains a null value.

Severity: 12

System Action: The stored procedure DSNACICS terminates without calling the CICS transaction.

Programmer Response: Correct the input parameter value in the SQL CALL statement, or ensure that the user exit DSNACICX sets the parameter to a non-null value.

System Programmer Response: Ensure that the user exit DSNACICX sets the parameter to a non-null value.

DSNA303I THE PARAMETER NETNAME WAS NOT SPECIFIED WHEN THE CONNECT TYPE OF SPECIFIC WAS SPECIFIED

Explanation: The input parameter NETNAME must contain a non-null value when the CONNECT TYPE parameter is set to SPECIFIC.

Severity: 12

System Action: The stored procedure DSNACICS terminates without calling the CICS transaction.

Programmer Response: Correct the input parameter value in the SQL CALL statement, or ensure the the user exit DSNACICX sets the parameter to a non-null value.

System Programmer Response: Ensure that the user exit DSNACICX sets the parameter to a non-null value.

DSNA304I THE USER EXIT DSNACICX RETURNED RETURN CODE = X'hhhhhhh' AND THE FOLLOWING ERROR MESSAGE:

Explanation: The user exit DSNACICX returned a non-zero return code and a message to stored

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procedure DSNACICS. The message that DSNACICX returns immediately follows message DSNA304I.

Severity: 12

System Action: The stored procedure DSNACICS terminates without calling the CICS transaction.

Programmer Response: Contact the system programmer.

System Programmer Response: Correct the cause of the error message that the user exit generated.

DSNA305I THE CICS EXCI *func* REQUEST FAILED. CICS RESPONSE CODE = X'hhhh' CICS REASON CODE = X'hhhhhhh'

Explanation: DSNACICS uses the CICS EXCI Call interface to request the execution of a CICS server program. CICS EXCI interface call *func* resulted in an unexpected CICS response code and reason code. Possible values of *func* are:

Initialize_User Initializes the EXCI user environment.

Allocate_Pipe Allocates a session to a CICS region.

Open_Pipe Connects an allocated pipe to a receive session of the CICS region.

DPL_Request Issues a request to execute the CICS server program.

Close_Pipe Disconnects an open pipe from a CICS region.

Deallocate_Pipe
Deallocates a pipe from a CICS region.

The failure can occur because the EXCI interface is not properly enabled for the CICS subsystem. For explanations of the CICS response code and reason code, see *CICS Transaction Server for z/OS External Interfaces Guide*.

Severity: 12

System Action: The stored procedure DSNACICS terminates without calling the CICS transaction.

Programmer Response: Contact the system programmer.

System Programmer Response: Ensure that the EXCI interface is enabled to the CICS region that the stored procedure calls. If you suspect an error in the DB2 stored procedure, refer to Part 3 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Add a DSNADUMP DD statement to the JCL startup procedure for the stored procedure address space in which DSNACICS runs. Then rerun the application that calls DSNACICS. This causes DB2 to generate an SVC dump whenever it issues an error message for DSNACICS.

If you suspect an error in the DB2 stored procedure, refer to Part 3 of *DB2 Diagnosis Guide and Reference*. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 22.

DSNA306I THE CICS SERVER PROGRAM *program* ABENDED. CICS ABEND CODE=C'cccc'

Explanation: The CICS server program that DSNACICS called abnormally terminated. CICS returns a four-character abend code to indicate the error. These error codes are described in *CICS Transaction Server for z/OS Problem Determination Guide*.

Severity: 12

System Action: Stored procedure DSNACICS processes the next request. CICS does a backout to the last syncpoint and forces the SYNCONRETURN option.

Programmer Response: Correct the error in the server program.

System Programmer Response: Correct the cause of the error in the server program. Ensure that the mirror transaction is still enabled after this error. The mirror transaction must be enabled so that subsequent requests to run a server program are accepted.

DSNA307I OS/390 *token-service* REQUEST FAILED. SYSTEM RETURN CODE=X'hhhh'

Explanation: DSNACICS uses the OS/390 token services to save task-level information. The OS/390 service returned an unexpected return code.

token-service is the token service function that DSNACICS requested. Possible values are:

Create_token Create a token using the IEANTCR service.

Retrieve_token Retrieve a token using the IEANTRT service.

See the description of IEANTCR or IEANTRT in *z/OS MVS Programming: Assembler Services Reference, Volumes 1 and 2* for a full description of the return code.

Severity: 12

System Action: Stored procedure DSNACICS processes the next request.

Programmer Response: Contact the system programmer.

System Programmer Response: Add a DSNADUMP DD statement to the JCL startup procedure for the stored procedure address space in which DSNACICS runs. Then rerun the application that calls DSNACICS. This causes DB2 to generate an SVC dump whenever it issues an error message for DSNACICS.

If you suspect an error in the DB2 stored procedure, refer to Part 3 of *DB2 Diagnosis Guide and Reference*. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 22.

DSNA308I THE CICS EXCI DPL_REQUEST REQUEST FAILED. CICS RESPONSE CODE=0. DPL RETAREA CONTAINS FIELD1=X'hhhhhhh', FIELD2=X'hhhhhhh', FIELD3=C'cccc'

Explanation: DSNACICS uses the CICS EXCI Call interface to request the execution of a CICS server program. The DPL_REQUEST command returned an unexpected value in the DPL_RETAREA. See *CICS Transaction Server for z/OS External Interfaces Guide* and *CICS Application Programming Guide* for a full description of the meanings of FIELD1, FIELD2, and FIELD3.

Severity: 12

System Action: Stored procedure DSNACICS processes the next request.

Programmer Response: Correct any errors in the server program. Contact the system programmer.

System Programmer Response: Add a DSNADUMP DD statement to the JCL startup procedure for the stored procedure address space in which DSNACICS runs. Then rerun the application that calls DSNACICS. This causes DB2 to generate an SVC dump whenever it issues an error message for DSNACICS.

If you suspect an error in the DB2 stored procedure, refer to Part 3 of *DB2 Diagnosis Guide and Reference*. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 22.

DSNA309I UNABLE TO LOAD USER EXIT DSNACICX. SYSTEM REASON CODE=X'hhhh' SYSTEM COMPLETION CODE=X'hhhh'

Explanation: DSNACICS was unable to load the user exit routine DSNACICX.

Severity: 12

System Action: The stored procedure DSNACICS does not call the CICS transaction. DSNACICS processes the next request.

Programmer Response: Contact the system programmer.

System Programmer Response: Ensure that the STEPLIB statement in the startup procedure for the stored procedure address space specifies the library that contains DSNACICX. A default user exit is shipped in the SDSNLOAD DB2 library.

Add a DSNADUMP DD statement to the JCL startup procedure for the stored procedure address space in which DSNACICS runs. Then rerun the application that calls DSNACICS. This causes DB2 to generate an SVC dump whenever it issues an error message for DSNACICS.

If you suspect an error in the DB2 stored procedure, refer to Part 3 of *DB2 Diagnosis Guide and Reference*. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 22.

DSNA310I STORED PROCEDURE TASK CANCELLED BY OPERATOR

Explanation: The task that called the DSNACICS stored procedure was cancelled by the operator.

Severity: 12

System Action: DSNACICS terminates immediately. The CICS server program might have been called.

Programmer Response: Contact the system programmer.

System Programmer Response: Determine why the operator cancelled the stored procedure task.

DSNA311I DSNACICS ABNORMALLY TERMINATED

Explanation: The task that called the DSNACICS stored procedure abnormally terminated.

Severity: 12

System Action: DSNACICS terminates immediately. The CICS server program might have been called. An SVC dump or a SYSMDUMP is generated for this error. If a CICS service encountered an error, a SYSMDUMP might be generated. For an abend in the stored procedure, an SVC dump is generated.

Programmer Response: Contact the system programmer.

System Programmer Response: Review the JES messages for the stored procedure address space in which DSNACICS runs. Look for CICS or system messages that describe the source of the problem.

If you suspect an error in the DB2 stored procedure, refer to Part 3 of *DB2 Diagnosis Guide and Reference*. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 22.

DSNA312I USER EXIT DSNACICX ABNORMALLY TERMINATED

Explanation: User exit program DSNACICX abnormally terminated.

Severity: 12

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System Action: DSNACICS terminates immediately. The CICS server program is not called. An SVC dump is generated for this error.

Programmer Response: Contact the system programmer.

System Programmer Response: Determine why the user exit abended. If you suspect an error in the DB2 stored procedure, refer to Part 3 of *DB2 Diagnosis Guide and Reference*. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 22.

DSNA313I DSNACICS TERMINATED BY DB2 CANCEL THREAD COMMAND

Explanation: The stored procedure DSNACICS terminated because the operator issued the DB2 CANCEL THREAD command.

Severity: 12

System Action: DSNACICS terminates immediately. The CICS server program might have been called.

Programmer Response: Contact the system programmer.

System Programmer Response: Determine why the operator issued the DB2 CANCEL THREAD command.

DSNA314I UNABLE TO LOAD CICS STUB ROUTINE DFHXCSTB. SYSTEM REASON CODE=X'hhhh' SYSTEM COMPLETION CODE=X'hhhh'

Explanation: DSNACICS was unable to load the CICS stub routine DFHXCSTB.

Severity: 12

System Action: The stored procedure DSNACICS does not call the CICS transaction. DSNACICS processes the next request.

Programmer Response: Contact the system programmer.

System Programmer Response: Ensure that the STEPLIB statement in the startup procedure for the stored procedure address space specifies the CICS library that contains DFHXCSTB. DFHXCSTB is in the CICS EXCI library (SDFHEXCI). This library must be APF authorized.

Add a DSNADUMP DD statement to the JCL startup procedure for the stored procedure address space in which DSNACICS runs. Then rerun the application that calls DSNACICS. This causes DB2 to generate an SVC dump whenever it issues an error message for DSNACICS.

If you suspect an error in the DB2 stored procedure, refer to Part 3 of *DB2 Diagnosis Guide and Reference*. Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 2, 22.

DSNA315I DSNAIMS FUNCTION *func-name* HAS COMPLETED SUCCESSFULLY.

Explanation: The stored procedure, DSNAIMS, executed successfully.

System Action: None.

Programmer Response: None.

DSNA316I DSNAIMS INPUT PARAMETER ERROR. CALLER MUST PROVIDE INPUT FOR PARAMETER *parm-name* WITH FUNCTION *func-name*.

Explanation: A value for parameter *parm-name* is required for function *func-name*.

System Action: DSNAIMS execution terminated before invoking IMS.

Programmer Response: Provide an appropriate value for the parameter, and re-run the function.

DSNA317I DSNAIMS ERROR IN *otmaci-api* API. RC=*return-code*, RSN1=*reason-code1*, RSN2=*reason-code2*, RSN3=*reason-code3*, RSN4=*reason-code4*.

Explanation: OTMA Callable Interface API *otmaci-api* encountered an error.

System Action: The DSNAIMS execution terminated after executing the specified API call.

Programmer Response: Refer to the *IMS OTMA Guide and Reference* for explanations of the return and reason codes.

DSNA318I DSNAIMS ERROR IN RRS CTXRCC API. RC=*return-code*

Explanation: An error was encountered in RRS when processing the two-phase commit.

System Action: DSNAIMS execution terminated before invoking IMS.

Programmer Response: Refer to the *MVS Programming Resource Recovery* manual for an explanation of the return code.

DSNA319I DSNAIMS RECEIVED UNKNOWN FUNCTION *func-name*

Explanation: DSNAIMS received an unknown function name in parameter 1 of the stored procedure call.

System Action: DSNAIMS terminated before invoking IMS.

| **Programmer Response:** Specify a function name
| known to DSNAIMS in parameter 1.

DSNA8xx

Explanation: Messages in the DSNA800 series are intended for diagnosis and are documented in Part 8 of *DB2 Diagnosis Guide and Reference*.

Chapter 5. DSNB... Messages

DSNB200I UPDATE VVDS FAILED. DSNNAME =
dsn, **MMRC=cccccccc**
CONNECTION-ID=xxxxxxxxx,
CORRELATION-ID=yyyyyyyyyyyyy,
LUW-ID=logical-unit-of-work-id =token

Explanation: DB2 was unable to update the data set high-used RBA in the VSAM volume data set (VVDS) when it was ready to close a data set that was used by a RECOVER, LOAD, or REORG utility job. The error was detected by the media manager catalog update function that issues system message IEC161I. The *dsn* indicates the DSNNAME of the data set. MMRC is the return code that DB2 received from the media manager catalog update service. Refer to *z/OS DFSMSdfp Diagnosis Reference* for a description of these codes.

The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

An LUW-ID of '*' indicates that the thread does not have an LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

System Action: DB2 continues closing this data set. However, the utility job is informed with a 00C2010C 'resource unavailable' reason code. The utility job is left in a failed state.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the cause of the error, refer to system message IEC161I in the appropriate MVS publication. Correct the error, and then notify the user to reinvoke the application.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 10, 11.

DSNB204I OPEN OF DATA SET FAILED. DSNNAME
= dsn

Explanation: A required data set of a DB2 table or index space could not be opened. The error was detected by the media manager CONNECT function that issues system message IEC161I. The *dsn* indicates the DSNNAME of the data set.

After being issued for a given data set, this message is disabled for that data set.

System Action: Buffer manager functions that detect this condition terminate.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the

cause of the error, refer to system message IEC161I in the appropriate MVS publication. Correct the error, and reinvoke the application.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 10, 12.

DSNB207I DYNAMIC ALLOCATION OF DATA SET
FAILED. REASON = rrrr DSNNAME = dsn

Explanation: A required data set of a DB2 table or index space could not be allocated. Reason code *rrrr*, which is returned by dynamic allocation, indicates the reason for the failure. Refer to the appropriate MVS publications for a description of this reason code. The *dsn* indicates the data set's DSNNAME.

After being issued for a given data set, this message is disabled for that data set.

This message is issued by the following CSECT:
DSNB1OST

System Action: Buffer manager functions that detect this condition terminate and pass a unique error return code.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the situation, and then reinvoke the application.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 10, 12.

DSNB209I csect-name-BUFFER MANAGER
TABLESPACE/INDEXSPACE
CLEAN-UP ROUTINE (DSNB1CFC)
HAS BEEN SCHEDULED FOR DBNAME
= dbn, SPACENAME = spn, PSID =
X'psid'

Explanation: DB2 detected an abnormal condition for one of the following reasons:

- The associated table space or index space contains modified pages that cannot be written to DASD for a period of time that is longer than expected. This can be caused by either an unusually long period of contiguous update or by an internal logic error.
- This message follows an abnormal termination due to inconsistent data or an incomplete update to the page.

DB2 scheduled the table space or index space cleanup routine (DSNB1CFC) for the associated table space or index space. DSNB1CFC acquires a drain lock to ensure that no updates are in progress. Data is inaccessible to users during the cleanup process.

For recoverable inconsistent pages with unbalanced write intents, DB2 initiates the recovery process and reconstructs the pages using the DB2 log. For other modified pages with unbalanced write intents, the buffer manager forces the pages to be written back to DASD and then makes the buffer space available for reassignment.

The *dbn* indicates the database name with which the table space or index space is associated. The *spn* is the name of the table space or index space that must be cleaned up. The *psid* is the internal identifier for the table space or index space; it is used to associate this message with follow-on message DSNB221I, which might be issued.

System Action: DB2 is ready to clean up the associated table space or index space. However, before any cleanup is initiated, DB2 requests a drain on the table space or index space. DB2 waits indefinitely for this lock. Therefore, all activities against the table space and/or index space must be quiesced before the cleanup process can proceed. If the associated object is an index space, all activities against the table space for which the index space is defined must also be quiesced. After the cleanup process completes, the table space or index space is automatically made accessible to users.

User Response: If the clean up activity does not appear to be completed, DB2 might still be waiting for a drain lock on the table space. Issue a -DISPLAY DATABASE CLAIMERS command for the table space in question (for index spaces, this would be the associated table space) to determine whether the clean up routine is still waiting for a lock and if so, to determine the holders of the table space lock. If the jobs are holding the table space lock for a very long duration (for instance, wait-for-input), it might be necessary to cancel those jobs in order to allow the clean up process to proceed.

DSNB212I *csect-name*—RECOVER PAGE
STARTING DBNAME = *dbn* ,
SPACENAME = *spn* , PAGE NUMBER =
X'*pno*'

Explanation: The buffer manager (BM) subcomponent of DB2 discovered an inconsistent page with unbalanced write intents. DB2 is ready to do online recovery on the page using the DB2 log. The *dbn* indicates the associated database name. The *spn* indicates the table space name or index space name. The *pno* is the page number (in hexadecimal) within the table space or index space that is logically inconsistent.

System Action: Processing continues.

DSNB215I *csect-name*—ONLINE RECOVERY FOR AN INCONSISTENT PAGE HAS BEEN COMPLETED FOR DBNAME = *dbn* ,
SPACENAME = *spn* , PAGE NUMBER =
X'*pno*'

Explanation: The recovery process for an inconsistent page completed. The *dbn* indicates the associated database name. The *spn* indicates the table space name or index space name. The *pno* is the page number (in hexadecimal) within the table space or index space that was logically inconsistent.

System Action: Processing continues.

DSNB217I *csect-name*—ONLINE RECOVERY FOR AN INCONSISTENT PAGE WAS UNSUCCESSFUL FOR DBNAME = *dbn* ,
SPACENAME = *spn* , PAGE NUMBER =
X'*pno*'

Explanation: The recovery process for an inconsistent page failed. The page is written to DASD as logically inconsistent. This message is issued in response to message DSNB212I, which was issued to indicate the start of the recovery process. The *dbn* indicates the associated database name. The *spn* indicates the table space name or index space name. The *pno* is the page number (in hexadecimal) within the table space or index space that was logically inconsistent.

System Action: The page is marked as logically inconsistent and is unavailable until it is repaired. The execution unit driving this function proceeds normally.

Problem Determination: A DSNB012I message might be issued before this message to indicate the same failure. If it is, a 00C90102 abend dump might help determine the cause of this failure. Otherwise, see SYS1.LOGREC for any abend that occurred between the associated DSNB212I message and this message. Use the time stamp on the log records to find this abend.

DSNB219I *csect-name*—BUFFER MANAGER TABLESPACE/INDEXSPACE CLEAN-UP PROCESS HAS BEEN COMPLETED FOR DBNAME = *dbn* ,
SPACENAME = *spn*

Explanation: This message indicates that the buffer manager (BM) table space or index space cleanup process completed for the associated table space or index space. Refer to message DSNB209I for the reasons why the buffer manager schedules the table space or index space cleanup process. The *dbn* indicates the associated database name. The *spn* indicates the table space name or index space name.

System Action: Processing continues.

DSNB221I *csect-name*–BUFFER MANAGER
TABLESPACE/INDEXSPACE
CLEAN-UP PROCESS WAS NOT
REQUIRED FOR PSID = X'*psid*'

Explanation: This message indicates that the buffer manager (BM) table space or index space cleanup process was bypassed for the associated table space or index space. After quiescing all other activities against the table space or index space, the buffer manager discovered that the table space or index space is no longer in active mode; that is, it was closed.

The abnormal condition detected earlier was resolved by buffer manager close page set processing. Refer to the corresponding message, DSNB209I, using *psid* as the matching field, for the reasons the buffer manager schedules the table space or index space cleanup process. The *psid* is the internal identifier for the associated table space or index space.

System Action: Processing continues.

DSNB223I *csect-name*–BUFFER MANAGER
TABLESPACE/INDEXSPACE CLEANUP
PROCESS WAS SKIPPED FOR PSID =
X'*psid*'

Explanation: This message indicates that the table space or index space cleanup process was bypassed for the associated table space or index space. During the process of quiescing all other activities against the table space or index space, an error that is not recoverable was detected. The error might be caused by any of the following conditions:

- An out-of-storage condition was detected by IRLM.
- The table space or index space was dropped because of a backout.

It is assumed that the abnormal condition detected earlier can later be resolved by the close page set processing. Refer to the corresponding message DSNB209I (use *psid* as the matching field) for the reasons for scheduling the table space or index space cleanup process. The *psid* specifies the internal identifier for the associated table space or index space.

System Action: Processing continues.

System Programmer Response: The associated table space or index space might contain inconsistent data. Issue the DB2 STOP TABLESPACE or INDEXSPACE command to allow close page set processing to perform cleanup for the associated table space or index space.

DSNB224I *csect-name*– BUFFER MANAGER I/O
ERROR DURING *function*,
DBNAME=*dbn*,SPACENAME=*snm*, DATA
SET NUMBER=*dsno*, PAGE
NUMBER=X'*pno*', MM ERROR
FLAG=X'*aa*', CSW STATUS=X'*bbbb*',
SENSE BYTES=X'*cccc*', SEEK
ADDRESS=X'*dddddddddddddd*'

Explanation: An I/O error was encountered by the buffer manager (BM) subcomponent of DB2. The function specified in the message is READ, WRITE, or FORMAT. The message gives the database name, table space name or index space name, data set number, and page number (in hexadecimal) of the page for which the I/O operation was being performed. The remaining information is error information returned by the media manager and is used for error analysis by IBM support personnel.

System Action: The system action depends on the function being performed. If the function is WRITE, or if the function is READ and the operation was performed during restart or rollback, the I/O error page range of the data set is updated and message DSNU086I is issued. In most cases (READ, synchronous WRITE, FORMAT), a 'resource not available' is returned to the user with a reason code that identifies the nature of the problem.

After being issued 10 times for a given data set, this message is disabled for that data set until it is closed and reopened.

Operator Response: Notify the system programmer.

System Programmer Response: See documentation in Part 4, "Section 4. DB2 Codes," on page 773 for the reason code returned to the user in the SQLCA or in utility messages. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See the Problem Determination section of the reason code returned to user.

Check the MVS console log for an IOS error message indicating the type of I/O error that occurred. If an IOS message was issued, follow the problem determination directions for that message.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

DSNB225I *csect-name* - BUFFER MANAGER I/O
 ERROR DURING *function*
 DBNAME=*dbn*, SPACENAME=*snm*, DATA
 SET NUMBER=*dsno*, MM ERROR
 CODES=*X'aaaaaaaa'* DB2 REASON
 CODE=*X'bbbbbbb'*

Explanation: DB2 encountered an I/O error. The function specified in the message is READ, WRITE, CASTOUT, or FORMAT. The message contains the database name, table space name or index space name, data set number, media manager error information returned at the time of the failure, and the DB2 reason code associated with this failure.

System Action: Except for a castout error, the application terminates with abend X'04E' and reason code 00C200A4 or 00C200C0. If an error occurs during castout, processing continues.

Operator Response: Notify the system programmer and follow the directions given for the reason code described in Part 4, "Section 4. DB2 Codes," on page 773.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This message is issued before the occurrence of abend X'04E' and reason code 00C200A4 or 00C200C0 to provide information related to the media manager failure.

Check the MVS console log for an IOS error message indicating the type of I/O error that occurred. If an IOS message was issued, follow the problem determination directions for that message.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 10, 12.

DSNB226I *csect-name* - BUFFER MANAGER PAGE
 GET ROUTINE DETECTED AN INVALID
 PAGE IN DBNAME=*dbn*
 SPACENAME=*snm* DATA SET
 NUMBER= *dsno* PAGE
 EXPECTED=*X'aaaaaa'* PAGE NUMBER
 FOUND=*X'bbbbbb'*

Explanation: An unexpected page was received during buffer manager (BM) get page processing. The page set involved is identified by the database name, space name, and data set number. The page in error is identified by page expected *aaaaaa*. Page number *bbbbbb* was found in the buffer that should contain the expected page.

System Action: The application is terminated with abend X'04E' and reason code 00C200F7.

Operator Response: Notify the system programmer and follow the directions given for reason code

00C200F7 in Part 4, "Section 4. DB2 Codes," on page 773

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This message is issued before the occurrence of abend X'04E' and reason code 00C200F7 to provide information about the page set involved.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 10, 12, 64.

DSNB227I *csect-name* - DFHSM RECALL FAILED
 FOR DSNAME=*dsn* HSMRC=*aaaaaaaa*
 HSMRSN=*bbbbbbb'*

Explanation: The attempt to recall a migrated data set failed. DSNAME identifies the data set. HSMRC and HSMRSN are the return code and reason code given by DFHSM.

System Action: A 'resource not available' code is returned to the user.

Operator Response: Notify the system programmer.

System Programmer Response: Use the information provided in the message to determine the reason for the DFHSM recall failure.

Problem Determination: Refer to Part 4, "Section 4. DB2 Codes," on page 773 for an explanation of the return and reason codes contained in this message. Refer to the DFHSM message ARC11nnI, where nn is the value of HSMRC.

DSNB228I *csect-name* GROUP BUFFER POOL
gbpname CANNOT BE ACCESSED FOR
function MVS IXLCACHE REASON
 CODE=*reason*

Explanation: While accessing group buffer pool *gbpname* for function *function* DB2 received an error from the MVS IXLCACHE request.

function

READ or WRITE

reason Reason code from the MVS IXLCACHE request

System Action: The system action depends on the function being performed. If the function is a WRITE, or a READ performed during rollback or DB2 restart, the page is added to the logical page list (LPL) for the data set and message DSNB250E is issued. Otherwise, 'resource unavailable' is returned to the user with a reason code that identifies the specific problem.

System Programmer Response: See *MVS/ESA Programming: Sysplex Services Reference* for an

explanation of the MVS IXLCACHE reason code.

DSNB229I *csect-name* **UNEXPECTED ERROR WHEN CHECKING FOR REQUEST COMPLETION FOR GROUP BUFFER POOL** *gpb-name* **MVS IXLFCOMP REASON CODE=reason**

Explanation: DB2 received an unexpected error from MVS when checking for the completion of a write request to the secondary group buffer pool for duplexing. *gpb-name* indicates the name of the group buffer pool. If the group buffer pool is duplexed and the error was encountered on a request to the secondary group buffer pool, then *gpb-name* indicates the name of the group buffer pool suffixed with '-SEC'.

reason is the reason code from the MVS IXLFCOMP service.

System Action: DB2 returns the group buffer pool back to simplex mode. The secondary group buffer pool is deallocated.

System Programmer Response: See *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the MVS IXLFCOMP reason code.

DSNB232I *csect-name* - **UNEXPECTED DATA SET LEVEL ID ENCOUNTERED - LEVEL ID =lvlid EXPECTED LEVEL ID=xlvlid DSN=dsn**

Explanation: A required data set of a DB2 table space could not be opened. DB2 encountered an unexpected data set level ID.

lvlid The unexpected level ID from the data set. If DB2 was unable to retrieve the level ID from the data set (for example, if the data set had been deleted and redefined), the level ID is shown as "X".

xlvlid The level ID recorded by DB2 previously and is the expected level ID for opening the data set

dsn The DSNAME of the data set.

This problem could be the result of data sets that were restored to a level that is inconsistent with other data sets, inconsistent with the DB2 log, or both.

System Action: DB2 sends back a 'resource unavailable' SQL code to the application and a reason code explaining the error.

Operator Response: Notify the system programmer.

System Programmer Response: To enable access to a data set reported as down level, take one of the following actions:

- Restore the page set or partition to the proper level (use DSN1COPY, DFHSM, or another tool).

Identify the level ID of a copy of the page set or partition by running the DSN1PRNT(FORMAT) utility. The level ID is found in the header page of the page set or partition.

- Recover the down level page set or partition to currency by running the RECOVER or RECOVER LOGONLY utility.
- Accept the down levelling by running the REPAIR utility with the LEVELID option.

This option is only valid if DB2 is able to access the level ID (*lvlid* is not "X").

Inconsistent data problems might result from this action and are the user's responsibility.

- Replace the contents of the page set or partition using the LOAD REPLACE utility.
- Explicitly restore the page set to a prior point in time with the RECOVER utility.

If the expected level ID is less than the encountered level ID, it is possible that the object identified in the message was ported from another system improperly or it might indicate that DSNDB01.SYSLGRNX is down level. If the problem is in the object identified in the message, the actions listed above can be used to allow access to the data. If the problem is in SYSLGRNX, this is a serious situation that compromises the recoverability of all objects managed by DB2. Investigate whether SYSLGRNX might have inadvertently been restored to a point in time inconsistent with the rest of the DB2 system.

DSNB250E *csect-name* **A PAGE RANGE WAS ADDED TO THE LOGICAL PAGE LIST DATABASE NAME = dbn SPACE NAME = spn DATA SET NUMBER = dsno PAGE RANGE = lowpg TO highpg START LRSN = startlrsn END LRSN = endlrsn START RBA = startrba LPL TRACE ID = traceid LPL REASON TYPE = reasontype**

Explanation: DB2 added a page range to the logical page list (LPL) for the specified data set because of a problem with the pages in the page range. The *startlrsn* and *endlrsn* give the log range needed to recover the pages in the page range. These values are RBA values unless DB2 is in the data sharing environment, in which case these values are LRSN values. In the data sharing environment, *startrba* indicates the starting RBA value of the recovery log range if the value is not zero. The *startrba* only applies to log records for the DB2 member that issued the message. The zero value for *endlrsn* in this message refers to the current end of the recovery log. The *traceid* is for IBM serviceability. The *reasontype* explains why the pages were added into LPL; the following are the reason types:

DASD DB2 encountered a DASD I/O error when trying to read or write pages on DASD.

LOGAPPLY

DB2 cannot apply log records to the pages.

GBP

DB2 cannot successfully read nor externalize the pages from or to the group buffer pool because of link or structure failure, the GBP is in rebuild status, or the GBP was disconnected.

LOCK

DB2 cannot get the required page latch or page P-lock on the pages.

CASTOUT

The DB2 Castout processor cannot successfully cast-out the pages.

System Action: The pages are added to the LPL, and DB2 initiates the Automatic LPL Recovery. The pages remain inaccessible until they are recovered with either the START DATABASE command with the SPACNAM option, the RECOVER utility, the LOAD utility, or the Automatic LPL Recovery. Users attempting to access a page in the LPL receive SQLCODE -904 with reason code 00C20206. If MVS detects a problem during group buffer pool access processing, DB2 writes a SYS1.LOGREC entry describing the error.

System Programmer Response: Check the reason and follow the appropriate actions, based on the console message. To recover pages from the LPL, perform one of the following actions:

- Issue the -START DATABASE command with the SPACENAM option
- Run the RECOVER or LOAD utility

DSNB260I *csect-name* **WARNING - A READER HAS BEEN RUNNING FOR *nnnn* MINUTES - CORRELATION NAME = xxxxxxxxxxxx, CONNECTION ID = yyyyyyyy, LUWID = LOGICAL-UNIT-OF-WORK-ID=*token*, PLAN NAME = xxxxxxxx, AUTHID = xxxxxxxx, END USER ID = xxxxxxxx, TRANSACTION NAME = xxxxxxxx, WORKSTATION NAME = xxxxxxxx**

Explanation: This message indicates that a long running reader has reached the time limit threshold without a COMMIT or ROLLBACK. This threshold was defined during installation.

The value *nnnn* is cumulative, and indicates the time in minutes that has elapsed since the beginning of this Unit of Work (UW).

CORRELATION name, CONNECTION ID, and Logical Unit of Work ID (LUWID) together identify a thread associated with the UW. *token* is a unique token number associated with the LUWID. If the LUWID is an '*', it indicates that the thread originated at this site.

PLAN NAME and AUTHID further identify the thread associated with the UW.

If the thread's creator included End User information, then DB2 displays the End User's ID, TRANSACTION

NAME, and WORKSTATION NAME. Otherwise, these fields will contain an '*'.
System Action: DB2 continues processing. If statistics class 3 is active, IFCID 0313 is written. This message will be repeated each additional time the threshold is reached.

System Programmer Response: Consult with the application programmer to determine if this is a problem UW. See Part 4 (Volume 1) of *DB2 Administration Guide* for more information about problems caused by uncommitted UR's.

If an application program caused the UW to reach its time limit threshold, you can use CANCEL THREAD to cancel the UR.

Programmer Response: Ensure that the application commits frequently enough, or consult with your DB2 administrator about decreasing the frequency of the check.

DSNB301E *csect-name* **GROUP BUFFER POOL *gbpname* CANNOT BE CONNECTED DB2 REASON CODE = *reason1* MVS IXLCONN REASON CODE = *reason2***

Explanation: DB2 was not able to connect to the named group buffer pool. This message is generally issued once for each DB2 subsystem for each DB2 reason code, except 00C20204, until the failure condition is corrected.

reason1

DB2 reason code

reason2

MVS IXLCONN reason code

For DB2 reason code 00C20204, which indicates a problem during MVS IXLCONN processing, this message is issued once for each DB2 subsystem for each IXLCONN reason code until the failure condition is corrected. If the DB2 reason code is not 00C20204, then *reason2* contains zeros. See *MVS/ESA Programming: Sysplex Services Reference* for an explanation of MVS IXLxxx reason codes

System Action: If the connection was requested on behalf of an access request by an SQL user on this DB2, SQLCODE -904 (resource unavailable) is returned to the SQL user with the DB2 reason code shown in this message.

If the connection was requested on behalf of an SQL user on another DB2 in the data sharing group, SQLCODE -904 (resource unavailable) is returned to the SQL user with DB2 reason code 00C20252. This indicates that the requested table space or index space is unavailable because another DB2 cannot connect to the group buffer pool.

If the MVS IXLCONN reason code is xxx0C08 (structure allocation failed because there was no

suitable facility to allocate based on the preference list in the MVS CFRM administrative policy), or if the MVS IXLCONN reason code is xxxx084C (user does not have proper Security Access Facility (SAF) authorization), then IFCID 0250, if active, contains additional diagnostic information.

DSNB302I *csect-name* **GROUP BUFFER POOL**
gbpname **IS ALLOCATED IN A**
VOLATILE STRUCTURE

Explanation: The DB2 group buffer pool structure is volatile.

One DB2 member issues this message whenever the structure has the volatile attribute. DB2 detects this either on the first connection to the group buffer pool or when the attribute changes later. DB2 always requests nonvolatile group buffer pools but allows allocation in a volatile structure if that is all that is available.

System Action: DB2 processing continues.

System Programmer Response: To cause the group buffer pools to be allocated in nonvolatile coupling facilities, ensure that:

- At least a subset of your coupling facilities are configured correctly for nonvolatility.
- The MVS CFRM policy correctly specifies the nonvolatile coupling facilities in the preference list for the group buffer pool coupling facility structures.

Even when these things are correctly done, there might be instances when a suitable coupling facility in the preference list cannot be found (for example, not enough free space), and therefore allocation occurs in a different coupling facility. MVS tries to allocate the structure in the facility that best meets the structure allocation request as follows:

1st choice:

Coupling facility that meets the volatility requirement, the space requirement, and the exclusion list requirement.

2nd choice:

Coupling facility that meets the volatility requirement and the storage requirement.

3rd choice:

Coupling facility that has the best fit (most available free space) even though this might be less than the amount requested.

4th choice:

Structure cannot be allocated.

IFCID 0250, if activated, contains a list of the coupling facilities on which allocation was attempted.

DSNB303E *csect-name* **A LOSS OF CONNECTIVITY**
WAS DETECTED TO GROUP BUFFER
POOL *gbpname*

Explanation: Connectivity to group buffer pool *gbpname* was lost.

System Action: DB2 disconnects from the coupling facility structure with REASON=FAILURE.

The action taken in response to this problem depends on the attempted function, as follows:

- For a coupling facility read: SQLCODE -904 (resource unavailable) is returned to the SQL user with a reason code indicating the specific error.
- For a coupling facility read during rollback, backout, or restart: The inaccessible page is added to the logical page list (LPL) for the page set. Message DSNB250E is issued for the first page of each data set added to the LPL.
- For a coupling facility read during castout: The castout operation cannot complete.
- For a coupling facility write: The changed page is added to the LPL for the page set.

DSNB304I *csect-name* **GROUP BUFFER POOL**
gbpname **WAS SET TO 'DAMAGE**
ASSESSMENT PENDING' STATUS

Explanation: A coupling facility structure for a group buffer pool was damaged.

System Action:

- DB2 puts the group buffer pool into 'damage assessment pending' (DAP) status. Message DSNB304I indicates the DAP status. The group buffer pool cannot be accessed until DAP status is cleared.
- The DB2 damage assessment process determines which table spaces and index spaces are using the failed group buffer pool and puts those spaces into 'group buffer pool recovery pending' (GRECP) status.
- After DB2 sets all the necessary spaces to GRECP status, the DAP status for the group buffer pool is cleared. Message DSNB305I indicates that DAP status is cleared.

DSNB305I *csect-name* **'DAMAGE ASSESSMENT**
PENDING' STATUS WAS CLEARED
FOR GROUP BUFFER POOL *gbpname*

Explanation: Damage assessment completed and the 'damage assessment pending' (DAP) status is cleared for the group buffer pool (GBP). At this point, the group buffer pool status is no longer restricted and DB2 attempts to reconnect to the group buffer pool on the next reference to a GBP-dependent page set within the associated buffer pool.

Message DSNB304I precedes this message.

DSNB306I *csect-name* **THE REQUESTED LENGTH OF THE LOCAL CACHE VECTOR COULD NOT BE ALLOCATED FOR GROUP BUFFER POOL** *gbpname*
REQUESTED LENGTH = length1
ALLOCATED LENGTH = length2

Explanation: DB2 connected to the group buffer pool indicated by *gbpname*, but the MVS Cross-system Extended Services (XES) component could not allocate the requested size of the local cache vector (LCV) in the hardware system area (HSA). DB2 requires an LCV size that is large enough to handle all pages in the member's buffer pool.

length1 indicates the LCV size (in number of bits) that DB2 requested. *length2* indicates the LCV size (in number of bits) that XES was able to allocate.

To prevent flooding the operator console, this message is only issued once per DB2 member per group buffer pool until the condition is corrected.

System Action: DB2 disconnects from the GBP and issues message DSNB301E with reason code 00C20208, if it has not yet been issued.

SQLCODE -904 is returned to the user with a reason code of 00C20208.

System Programmer Response: There is not enough HSA storage on the processor to support the size of the local cache vector. The details of HSA allocation are machine-dependent and are defined by the hardware. To correct this problem, take one or both of the following actions:

- Consult the documentation for your processor hardware to determine if the HSA storage allocation can be increased, and if so, how to do it.
- Modify the software configuration in your parallel sysplex to reduce the number or size of the vectors that are in use by other coupling facility structure users. Consider the following possible solutions:
 - Use the DB2 ALTER BUFFERPOOL command to reduce the size of this local buffer pool. This means that you might have to reduce the size of the virtual pool.
 - Use the DB2 ALTER BUFFERPOOL command to reduce the size of another local buffer pool that is already connected to a group buffer pool. This means that you might have to reduce the size of the virtual pool. If you make a connected buffer pool smaller, DB2 can usually contract the size of the corresponding LCV dynamically, making HSA storage available. However, DB2 cannot always do the dynamic LCV contraction. In cases where DB2 cannot dynamically contract the LCV size, you can use the DB2 ALTER BUFFERPOOL command to either force a deallocation of the LCV or to force a contraction of the LCV as follows:
 1. Redefine the virtual pool to be smaller than the original size.

2. Take one of the following actions:
 - a. Make the virtual pool very small (perhaps 50 pages or less). Making the virtual pool sufficiently small should let DB2 dynamically contract the LCV, or
 - b. Delete the virtual pool to let DB2 disconnect from the group buffer pool. This frees the entire LCV associated with that member's connection to that group buffer pool.
- Consolidate your group buffer pool-dependent page sets into fewer buffer pools to reduce the number of group buffer pool connections.
 - Consult the documentation for the other software components that might be using a coupling facility cache or list structure with an associated LCV to determine whether it is possible to either delete the connection or to reduce the size of the LCV associated with the connection.

DSNB307I *csect-name* **GROUP BUFFER POOL** *gbpname* **WAS SUCCESSFULLY ALLOCATED BUT THE EXCLUSION LIST WAS NOT HONORED**

Explanation: DB2 successfully connected to the group buffer pool and allocated the group buffer pool in a coupling facility. However, the group buffer pool was allocated in a coupling facility containing a structure in the exclusion list.

System Programmer Response: If you require that the exclusion list be honored, you must ensure that there is sufficient space in the coupling facilities that are not in the exclusion list. IFCID 0250 provides information about which facilities were attempted.

DSNB308I *csect-name* **GROUP BUFFER POOL** *gbpname* **WAS SUCCESSFULLY ALLOCATED BUT THE ALLOCATED SIZE OF *alloc_size* IS LESS THAN THE REQUESTED SIZE OF *req_size***

Explanation: DB2 successfully connected to the group buffer pool and allocated the group buffer pool in a coupling facility. However, the allocated size of the group buffer pool was less than the requested size in the MVS CFRM administrative policy because there is not enough space in the preference list facilities. Both *alloc_size* and *req_size* are in 4KB blocks.

System Programmer Response: IFCID 0250 provides information about which coupling facilities were used for attempted allocation.

DSNB309I *csect-name* **GROUP BUFFER POOL** *gbpname* **HAS BEEN DISCONNECTED WITH A REASON OF '*reason*'**

Explanation: DB2 disconnected from the named group buffer pool.

reason indicates one of the following values:

NORMAL

DB2 disconnected the group buffer pool normally. MVS deletes the connection.

FAILURE

DB2 disconnected the group buffer pool abnormally. MVS puts the connection into a 'failed-persistent' state. DB2 disconnects the GBP with a reason of FAILURE when some type of error has been detected, and castout processing cannot proceed. Usually the error involves a connectivity failure to either the coupling facility or DASD. This message is preceded by message DSNB303E, and probably a series of DSNB311I and DSNB312I messages.

If this message is issued because connectivity was lost to the group buffer pool, this message signifies that this DB2 member has completed its processing of the error.

System Programmer Response: See the system programmer response for message DSNB311I or DSNB312I.

DSNB310I *csect-name* **GROUP BUFFER POOL**
gpbname **IS ALLOCATED IN A**
NONVOLATILE STRUCTURE

Explanation: The coupling facility storage in which the group buffer pool is allocated was previously volatile, but is now nonvolatile. For availability reasons, we recommend that DB2 group buffer pools be allocated in nonvolatile coupling facility storage. When DB2 connects a group buffer pool, it requests that the backing coupling facility structure be allocated in nonvolatile storage. If the request for nonvolatile storage is not honored, DB2 issues message DSNB302I.

System Action: DB2 processing continues.

DSNB311I *csect-name* **DBNAME database SPACE**
NAME spacename HAS PAGES IN THE
LOGICAL PAGE LIST

Explanation: This message is issued after a loss of connectivity to a group buffer pool was detected. The message indicates that the named table space or index space has one or more pages in the logical page list (LPL) that need to be recovered. This message is issued after DB2 has completed its processing for the table space or index space; this is the earliest point at which you can recover LPL pages for that table space or index.

System Action: The pages in the LPL are not accessible until they have been recovered.

System Programmer Response: Issue the START DATABASE command with the named table space or index to recover the LPL pages. The START DATABASE command must be issued from a DB2

member that can connect to the group buffer pool. Alternatively, the RECOVER utility or the LOAD utility can be used to recover the LPL pages.

DSNB312I *csect-name* **DBNAME database SPACE**
NAME spacename PARTITION
part-number **HAS PAGES IN THE**
LOGICAL PAGE LIST

Explanation: This message is issued after a loss of connectivity to a group buffer pool was detected. The message indicates that a partition of the named table space or index has one or more pages in the logical page list (LPL) that need to be recovered. This message is issued after DB2 has completed its processing for the partition; this is the earliest point at which you can recover the LPL pages for that partition.

System Action: The pages in the LPL are not accessible until they have been recovered.

System Programmer Response: Issue the START DATABASE command on the table space or index space partition to recover the LPL pages. The START DATABASE command must be issued from a DB2 member that can connect to the group buffer pool. Alternatively, the RECOVER utility or the LOAD utility can be used to recover the LPL pages.

DSNB313I *csect-name* **GROUP BUFFER POOL**
gpbname **TO BE DISCONNECTED**
REASON=reason LOSSCONN
PERCENTAGE=percentage

Explanation: This DB2 member is disconnecting from group buffer pool *gpbname* because it has lost connectivity to the coupling facility in which the group buffer pool is allocated.

reason is one of the following:

NOSFMPOL

MVS cannot determine the scope of the loss of connectivity because there is no active SFM policy with CONNFIL(YES).

LOSSCONN

MVS determined that the scope of the loss of connectivity was less than 100%.

NOXESEVL

MVS started to try to determine the scope of the loss of connectivity, but some condition occurred which prevented MVS from being able to complete the evaluation. One example of such a condition would be that the SFM policy became inactive while MVS was trying to do the evaluation.

If *reason* is LOSSCONN, then *percentage* indicates the percentage of lost connectivity that was calculated by MVS. MVS evaluates the scope of the loss of connectivity in terms of SFM weights associated with the systems which have lost connectivity and which

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have active connectors to the coupling facility structure (if there are systems that do not have an active connector to the coupling facility structure, then those systems are not factored into the "percentage loss of connectivity" calculation).

If *reason* is not LOSSCONN, then *percentage* is not applicable (it should appear as zero).

System Action: The DB2 member disconnects the group buffer pool, putting its connection into a "failed-persistent" state.

If there are transactions that are in progress at the time of the connectivity failure, DB2 might need to add pages to the logical page list (LPL).

System Programmer Response: Use the START DATABASE command to recover the LPL pages. If DSNDB01 or DSNDB06 objects have LPL pages, you might need to recover these first, before proceeding with LPL recovery for other objects.

DSNB314I *csect-name* **DAMAGE ASSESSMENT TO BE TRIGGERED FOR GROUP BUFFER POOL** *gpbname* **REASON=reason**

Explanation: DB2 is about to initiate the damage assessment function for group buffer pool *gpbname* because of a detected error in either the coupling facility in which the group buffer pool was allocated, or in the connectivity from the MVS systems to the coupling facility.

reason is one of the following:

100%LCON

An error has occurred in a coupling facility or in the attachments of MVS systems to a coupling facility which has caused all DB2 members to lose connectivity to the named group buffer pool.

STRFAIL

There was an error in the coupling facility in which the group buffer pool was allocated which caused a failure of the coupling facility structure.

CONERROR

The named group buffer pool is currently allocated in a coupling facility, but DB2 cannot connect to the group buffer pool because the system on which it is running does not currently have connectivity, and MVS has indicated that currently no other member is actively connected and has connectivity.

DAP The named group buffer pool is in damage assessment pending (DAP) state.

System Action: DB2 triggers the damage assessment function to ensure that any changed pages that might have been cached in the affected group buffer pool get marked as "needing recovery" (the objects to which the

pages belong are marked in GRECP state). This message should be immediately followed by a DSNB304I message indicating that the group buffer pool has been entered into damage assessment pending (DAP) state.

If there are transactions that are in progress at the time of the connectivity failure, DB2 might need to add pages to the logical page list (LPL).

There is one case where DB2 triggers damage assessment for a group buffer pool, but no DSNB314I message is issued. This case is where the group buffer pool was manually deleted (via MVS SETXCF FORCE commands) while all connections to the group buffer pool were failed-persistent (e.g. all DB2 members were down). In this case, the next DB2 member to connect to the group buffer pool will cause MVS to try to reallocate a new instance of the group buffer pool in some coupling facility in the CFRM policy preference list. If the allocation succeeds, then DB2, by doing a coupling facility structure version id comparison, will detect that the previous instance of the group buffer pool had been lost, and will trigger damage assessment. But you will not receive the DSNB314I message in this case, nor will you receive the DSNB304I or DSNB305I messages indicating that the group buffer pool has been put into damage assessment pending (DAP) state. You will only receive a series of DSNB322I and/or DSNB323I messages indicating those pagesets or partitions that have been put into GRECP state by the damage assessment process.

System Programmer Response: Use the START DATABASE command to recover the LPL pages and GRECP objects. If DSNDB01 or DSNDB06 objects are in GRECP state or have LPL pages, you might need to recover these first, before proceeding with GRECP or LPL recovery for other objects.

DSNB315I *csect-name* **GROUP BUFFER POOL** *gpbname* **IS ALLOCATED AS** **GBPCACHE** *cacheatt*

Explanation:

YES The group buffer pool will be used for data caching.

NO The group buffer pool will not be used for data caching. It will be used for cross invalidation only.

One DB2 member issues this message whenever the structure is allocated. DB2 detects this on the first connection to the group buffer pool either in the mainline processing or during group buffer pool rebuild.

System Action: DB2 processing continues.

DSNB319A *csect-name* **THERE IS A SHORTAGE OF SPACE IN GROUP BUFFER POOL**
gbp-name

Explanation: The amount of storage in the group buffer pool (GBP) coupling facility structure available for writing new pages is low. The GBP is 75 percent full with changed data. As the GBP fills with changed data, the castout thresholds are continuously reached, and the castout engines must continuously work to attempt to keep the number of changed pages in the GBP below the castout thresholds. Also, the more changed data the GBP contains, the less efficiently it operates. Completely running out of GBP storage can result in transaction delays and in pages being added to the logical page list (LPL).

This message stays on the MVS console and is highlighted.

System Action: DB2 processing continues.

This message might remain highlighted and might not be automatically deleted in a pre SP5.2.1-JES3 environment.

Operator Response: Contact the system programmer to fix the storage problem.

System Programmer Response:

You can relieve the GBP storage shortage by taking one or more of the following actions:

- Use the ALTER GROUPBUFFERPOOL command to lower the CLASST and GBPOOLT castout thresholds.
- Use the ALTER GROUPBUFFERPOOL command to lower the GBPCHKPT GBP checkpoint frequency.
- Use the MVS SETXCF START,REBUILD command to expand the GBP coupling facility structure. If you rebuild, you can use the ALTER GROUPBUFFERPOOL command to lower the RATIO so that a higher percentage of the GBP storage is given to data entries over directory entries.
- If you are running on MVS 5.2 or a subsequent release, you can use the MVS SETXCF START,ALTER command to expand the size of the GBP (the maximum size to which you can expand is determined by the SIZE parameter in the CFRM policy that was used to allocate the GBP).

If you don't do anything to relieve the storage shortage, message DSNB325A appears if the GBP reaches 90 percent full.

Message DSNB327I appears when the GBP storage shortage is relieved.

You can monitor the amount of GBP storage in use with the DISPLAY GBPOOL command and with the DB2 statistics trace. Monitor the castout activity to ensure that castouts are keeping up with the rate of GBP-write activity. You can use Performance trace classes 20 and

21 (specifically, IFCIDs 0261, 0262 and 0263) to do more detailed monitoring of the DB2 castout processing.

DSNB320I *csect-name - DBNAME database* **SPACE NAME** *spacename* **PARTITION**
part-number **IN GROUP BUFFERPOOL**
gbpname **IS IN GROUP BUFFERPOOL**
RECOVERY PENDING STATE

Explanation: This message reports the group buffer pool recovery pending (GRECP) status of the named table space or index space partition.

Severity: 4 (warning)

System Action: The data in the named partition is not accessible.

User Response: Issue the -START DATABASE command on the partition to remove the GRECP status and make the data accessible again. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

DSNB321I *csect-name - DBNAME database* **SPACE NAME** *spacename* **IN GROUP**
BUFFERPOOL *gbpname* **IS IN GROUP**
BUFFERPOOL RECOVERY PENDING
STATE

Explanation: This message reports the group buffer pool recovery pending (GRECP) status of the named table space or index space.

Severity: 4 (warning)

System Action: The table space or index space is not accessible.

User Response: Issue the -START DATABASE command on the table space or index space to remove the GRECP status and make the data accessible. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

DSNB322I *csect-name - TABLE SPACE OR INDEX*
SPACE WITH DBID X' dbid' PSID X'psid'
part-number **IN GROUP**
BUFFERPOOL *gbpname* **IS IN GROUP**
BUFFERPOOL RECOVERY PENDING
STATE AND CANNOT BE
AUTOMATICALLY RECOVERED

Explanation: This message reports the group buffer pool recovery pending (GRECP) status of the table space or index space partition identified by the internal identifiers DBID and PSID. This message is issued instead of message DSNB320I when the name of the table space or index space is not available. The partition cannot be automatically recovered because there are retained physical locks (P-locks) on the partition.

Severity: 4 (warning)

DSNB323I • DSNB327I

System Action: The data in the identified partition is not accessible.

User Response: Issue the -DISPLAY DATABASE(*) SPACENAM(*) RESTRICT command to determine the table spaces or index spaces partition in GRECP status. First, start the failed DB2 members that hold retained P-locks on the partition. Issue the -START DATABASE command on the partition to remove the GRECP status and make the data accessible again. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

DSNB323I *csect-name* - **TABLE SPACE OR INDEX SPACE WITH DBID X' dbid' PSID X' psid' IN GROUP BUFFERPOOL gbpname IS IN GROUP BUFFERPOOL RECOVERY PENDING STATE AND CANNOT BE AUTOMATICALLY RECOVERED**

Explanation: This message reports the group buffer pool recovery pending (GRECP) status of the table space or index space identified by the internal identifiers DBID and PSID. This message is issued instead of message DSNB321I when the name of the table space or index space is not available. The table space or index space cannot be automatically recovered because there are retained physical locks (P-locks) on the space.

Severity: 4 (warning)

System Action: The table space or index space is not accessible.

User Response: Issue the -DISPLAY DATABASE(*) SPACENAM(*) RESTRICT command to determine the table spaces or index spaces in GRECP status. First, start the failed DB2 members that hold retained P-locks on the table space or index space. Issue the -START DATABASE command on the table space or index space to remove the GRECP status and make the data accessible again. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

DSNB325A *csect-name* **THERE IS A CRITICAL SHORTAGE OF SPACE IN GROUP BUFFER POOL gbp-name**

Explanation: The amount of storage in the group buffer pool (GBP) coupling facility structure available for writing new pages is critically low. The GBP is 90 percent full with changed data. As the GBP fills with changed data, the castout thresholds are continuously reached, and the castout engines must continuously work to attempt to keep the number of changed pages in the GBP below the castout thresholds. In addition, the more the GBP is filled with changed data, the less efficient are the coupling facility storage management algorithms. Completely running out of GBP storage can result in transaction delays and in pages being added to the logical page list (LPL).

This message stays on the MVS console and is highlighted.

System Action: DB2 processing continues.

This message might remain highlighted and might not be automatically deleted in a pre-SP5.2.1-JES3 environment.

Operator Response: Contact the system programmer to fix the storage problem.

System Programmer Response: You can relieve the GBP storage shortage by taking one or more of the following actions:

- Use the ALTER GROUPBUFFERPOOL command to lower the CLASST and GBPOOLT castout thresholds.
- Use the ALTER GROUPBUFFERPOOL command to lower the GBPCHKPT GBP checkpoint frequency.
- Use the MVS SETXCF START,REBUILD command to expand the GBP coupling facility structure. If you rebuild, you can use the ALTER GROUPBUFFERPOOL command to lower the RATIO so that a higher percentage of the GBP storage is given to data entries over directory entries.
- If you are running on MVS 5.2 or a subsequent release, you can use the MVS SETXCF START,ALTER command to expand the size of the GBP (the maximum size to which you can expand is determined by the SIZE parameter in the CFRM policy that was used to allocate the GBP).

If you don't do anything to relieve the storage shortage, message DSNB228I appears if a write to the GBP fails due to a 'GBP full' condition. If DB2 detects a 'full' condition, it will suspend the transaction, initiate castout activity, and then retry the write to the GBP. If the GBP write still fails after several retry attempts, then DB2 adds the page to LPL.

Message DSNB327I appears when the GBP storage shortage is relieved.

You can monitor the amount of GBP storage in use with the DISPLAY GBPOOL command and with the DB2 statistics trace. Monitor the castout activity to ensure that castouts are keeping up with the rate of GBP-write activity. You can use Performance trace classes 20 and 21 (specifically, IFCIDs 0261, 0262 and 0263) to do more detailed monitoring of the DB2 castout processing.

DSNB327I *csect-name* **GROUP BUFFER POOL gbp-name HAS ADEQUATE FREE SPACE**

Explanation: The group buffer pool (GBP) coupling facility structure has adequate space available for the writing of new pages to the GBP.

This message may be issued when either of the following occurs:

- Rebuilding of GBP reduces changed page count to 60% or less of GBP capacity.
- 'changed data.' entries decrease to 60% or lower when they were previously 75% GBP capacity or higher.

System Action: DB2 processing continues.

DSNB330I *csect-name* **GROUP BUFFER POOL**
gbpname **CANNOT BE CONNECTED**
FOR REBUILD DB2 REASON CODE =
reason1 **MVS IXLCONN REASON CODE**
= *reason2*

Explanation: DB2 was not able to connect to the named group buffer pool for rebuild. *reason1* is the DB2 reason code. *reason2* is the MVS IXLCONN reason code. See *MVS/ESA Programming: Sysplex Services Reference* for an explanation of MVS IXLxxxx reason codes.

System Action: DB2 stops the rebuild.

Problem Determination: If the MVS IXLCONN reason code is xxxx0C08 (structure allocation failed because there was no suitable facility to allocate based on the preference list in the MVS CFRM administrative policy), or if the MVS IXLCONN reason code is xxxx084C (user does not have proper Security Access Facility (SAF) authorization), then IFCID 0250, if active, contains additional diagnostic information.

DSNB331I *csect-name* **REBUILD STARTED FOR**
GROUP BUFFER POOL *gbpname*
REASON = *reason*

Explanation: A rebuild has been initiated for the named group buffer pool. *reason* indicates the reason why the rebuild was initiated. *reason* can be one of the following:

OPERATOR

The operator initiated a SETXCF command to initiate the rebuild.

LOSSCONN

MVS detected a loss of connectivity to the group buffer pool.

This message is issued by each DB2 member participating in the rebuild.

System Action: The DB2 members that are actively connected to the named group buffer pool participate in the rebuild. DB2 accomplishes the group buffer pool rebuild processing in two phases:

1. Quiesce phase. Each member quiesces all local access to the group buffer pool.
2. Connect phase. Each member connects to the new structure. Each page set or partition castout owner that has connectivity to original structure is responsible for writing pages from the original structure to the new one. If there are not enough

data entries in the new structure, the page set and partition owners cast those pages out to DASD instead. Each member issues message DSNB332I after it completes this activity. After all members have completed their castout owner rebuild work, the group buffer pool structure owner does the final sweep and checks to see if there are any changed pages still remaining in the original structure. If so, the structure owner reads the changed pages from the original structure and writes them to the new one. The structure owner issues message DSNB333I after it has completed the final sweep.

After all members have responded to MVS indicating that its connect phase processing is complete, MVS then notifies each member that the rebuild is complete. Each DB2 member issues message DSNB338I indicating that the rebuild has completed successfully.

If an error occurs during the rebuild, the rebuild is stopped. Each DB2 member issues message DSNB335I indicating the reason why the rebuild is stopping, followed by message DSNB339I indicating that the rebuild has not completed successfully. The operator can also stop rebuilds using the MVS SETXCF command.

DSNB332I *csect-name* **THIS MEMBER HAS**
COMPLETED CASTOUT OWNER
WORK FOR GROUP BUFFER POOL
gbpname **PAGES CAST OUT FROM**
ORIGINAL STRUCTURE = *value1*
PAGES WRITTEN TO NEW
STRUCTURE = *value2*

Explanation: This DB2 member has completed its part of the rebuild processing for the named group buffer pool for the page sets and partitions for which it is the castout owner.

value1 indicates the number of pages that this member has castout to DASD for the rebuild. If the new structure has a sufficient number of data entries, then *value1* should normally be zero because DB2 writes the changed pages from the original structure to the new structure. However, if the new structure does not have sufficient space, then *value1* may be greater than zero because DB2 responds to insufficient space in the new structure by casting the changed pages in the original structure to DASD instead of writing them to the new structure.

value2 indicates how many changed pages this member wrote to the new structure from the original as part of the rebuild process. If the new structure has sufficient space, then each DB2 that has connectivity to the original structure writes the changed pages for page sets and partitions for which it is the castout owner from the original structure to the new structure, and *value2* indicates the number of pages that the DB2 member wrote.

value1 and *value2* would be zero if this member has no page set or partition castout ownership responsibility.

This message is issued by each DB2 member that has connectivity to the original group buffer pool, and it is always be preceded by message DSNB331I.

System Action: If this DB2 member is not the group buffer pool structure owner, then its rebuild work is done, and it notifies MVS that it has completed its part of the rebuild and awaits later notification that all members have completed. If this member is the structure owner, then it proceeds to its final sweep processing (see DSNB333I).

Refer to "System Action" for message DSNB331I for an explanation of the group buffer pool rebuild processing.

DSNB333I *csect-name* **FINAL SWEEP COMPLETED FOR GROUP BUFFER POOL** *gbpname* **PAGES WRITTEN TO NEW STRUCTURE = *value1***

Explanation: DB2 has completed the final sweep for the rebuild of the named group buffer pool. A final sweep means that the DB2 member that is the group buffer pool structure owner ensures that all changed pages have either been cast out to DASD or have been written to the new structure after all the page set and partition owners have finished their work. If any changed pages are found in the original structure during the final sweep, then the structure owner writes them out to the new structure. *value1* should be zero in most cases for a manual rebuild. *value1* will probably be greater than zero in most cases where the rebuild was initiated because a DB2 lost connectivity to the group buffer pool.

This message is issued by the structure owner and is always preceded by message DSNB332I.

System Action: Immediately after issuing this message, the structure owner notifies MVS that the rebuild has completed, and MVS should soon begin notifying each participating member that the rebuild is complete.

Refer to "System Action" for message DSNB331I for an explanation of the group buffer pool rebuild processing.

DSNB335I *csect-name* **REBUILD STOPPED FOR GROUP BUFFER POOL** *gbpname* **REASON = *reason1* DB2 REASON CODE = *reason2***

Explanation: A rebuild has been stopped for the named group buffer pool.

reason1 indicates why the rebuild was stopped:

OPERATOR

The operator initiated an MVS SETXCF command to stop the rebuild.

LOSSCONNNEW

One or more of the DB2 members lost connectivity to the new group buffer pool structure while the rebuild was in progress.

LOSSCONNOLD

One or more of the DB2 members lost connectivity to the original group buffer pool structure while the rebuild was in progress.

STRFAILNEW

The new group buffer pool structure failed while the rebuild was in progress.

STRFAILOLD

The original group buffer pool structure failed while the rebuild was in progress.

DB2REASON

DB2 decided to stop the rebuild. The reason code given in *reason2* indicates why DB2 stopped the rebuild.

INSUFFCONN

New structure does not provide connectivity that is better than or equivalent to the current structure.

NOBETRCNN

New structure does not provide better connectivity than the current structure for a *LossConn* rebuild

If *reason1* indicates 'DB2REASON', then *reason2* specifies a DB2 reason code that indicates why DB2 stopped the rebuild. If *reason1* is not 'DB2REASON', then *reason2* is zero.

This message is normally preceded by message DSNB331I, which indicates that the rebuild was started and the reason why the rebuild was started. This message is issued by each DB2 member participating in the rebuild. This message is followed by message DSNB339I.

System Action: The new structure is discarded. If the original structure is still usable, then all members that still have connectivity to the original structure resume using it. Members that do not have connectivity to the original structure disconnect, and their connections become failed-persistent.

If the original structure is not usable, then DB2 initiates damage assessment processing for the group buffer pool.

System Programmer Response: If the rebuild stopped because of "DB2REASON", see the explanation for the reason code given.

DSNB338I *csect-name* **THE REBUILD FOR GROUP BUFFER POOL *gbpname* HAS COMPLETED SUCCESSFULLY**

Explanation: The rebuild for the named group buffer pool has successfully completed.

This message is preceded by message DSNB331I which indicates the reason why the rebuild was started. This message is issued by each DB2 member participating in the rebuild.

System Action: The original structure is discarded and all DB2s that are connected to the group buffer pool begin using the new structure.

DSNB339I *csect-name* **THE STOP OF THE REBUILD FOR GROUP BUFFER POOL *gbpname* HAS COMPLETED**

Explanation: The stop of the rebuild for the named group buffer pool has completed.

This message is preceded by message DSNB335I which indicates the reason why the rebuild was stopped. This message is issued by each DB2 member participating in the rebuild.

System Action: The new structure is discarded. If the original structure is still usable, then all members that still have connectivity to the original structure resume using it, and members that do not have connectivity to the original structure disconnect and their connection goes into a failed-persistent state.

If the original structure is not usable, then DB2 initiates damage assessment processing for the group buffer pool.

DSNB340I *csect-name* **UNEXPECTED ERROR DURING REBUILD FOR GROUP BUFFER POOL *gbpname* MVS *service-name* RETURN CODE = *rc* MVS *service-name* REASON CODE = *reason***

Explanation: DB2 received an unexpected error from MVS during rebuild processing for the named group buffer pool.

service-name is one of the following:

IXLREBLD
IXLEERSP

rc is the return code from the MVS service and *reason* is the reason code.

System Action: DB2 stops the rebuild.

System Programmer Response: See *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the return and reason code for the named MVS service.

DSNB350I *csect-name* **DBNAME *database* SPACE NAME *spacename* CANNOT BE AUTOMATICALLY RECOVERED. DB2 REASON CODE = *reason***

Explanation: Following a group buffer pool failure, DB2 cannot automatically recover the named table space or index space. *reason* specifies a DB2 reason code that indicates why DB2 could not initiate the recovery.

Severity: 4 (warning)

System Action: The table space or index space remains in group buffer pool recovery pending (GRECP) status and is inaccessible.

User Response: Use the DB2 -START DATABASE command on the table space or index space to remove the GRECP status and make the data accessible. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

DSNB351I *csect-name* **DBNAME *database* SPACE NAME *spacename* PARTITION *part#* CANNOT BE AUTOMATICALLY RECOVERED. DB2 REASON CODE = *reason***

Explanation: Following a group buffer pool failure, DB2 cannot automatically recover the named table space or index space partition. *reason* specifies a DB2 reason code that indicates why DB2 could not initiate the recovery.

Severity: 4 (warning)

System Action: The partition remains in group buffer pool recovery pending (GRECP) status and is inaccessible.

User Response: Use the DB2 -START DATABASE command on the partition to remove the GRECP status and make the data accessible. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

DSNB352I *csect-name* **AUTOMATIC RECOVERY CANNOT BE INITIATED FOR GROUP BUFFER POOL *gbp-name* REASON = *reason***

Explanation: Following a failure of the named group buffer pool, DB2 is not able to initiate automatic recovery.

reason indicates the reason why automatic recovery was not initiated:

AUTORECNO

The AUTOREC option is set to NO for the group buffer pool.

CONNRELEASE

At least one actively connected DB2 member is not at the proper release to support automatic recovery.

Severity: 4 (warning)

System Action: The page sets and partitions that are in group buffer pool recovery pending (GRECP) status remain inaccessible.

User Response: Use the DB2 -START DATABASE command on the page sets and partitions to remove the GRECP status and make the data accessible. You can also use the RECOVER or LOAD utility with the REPLACE option to clear the GRECP status.

If *reason* is AUTORECNO and you want to enable automatic recovery for the group buffer pool, use the ALTER GROUPBUFFERPOOL command to set AUTOREC to YES for the group buffer pool.

If *reason* is CONNRELEASE, then you must ensure that all DB2 members in the group are running at the appropriate release. Automatic recovery is not supported unless all members are running Version 5 or a later release.

DSNB353I *csect-name* **ASYNCHRONOUS GRECP RECOVERY IN PROGRESS FOR GROUP BUFFER POOL** *bpoolname*

Explanation: Following a group buffer pool failure, DB2 triggers an automatic recovery process to attempt to recover GRECP page sets for the specified group buffer pool. This message is issued once by any DB2 member who is the page set castout owner on one of the objects being recovered.

System Action: Check for the DSNB354I message to verify the completion of the automatic recovery process.

DSNB354I *csect-name* **ASYNCHRONOUS GRECP RECOVERY HAS COMPLETED FOR GROUP BUFFER POOL** *bpoolname*.

Explanation: DB2 has completed the GRECP recovery process for those GRECP page sets in the group buffer pool specified in the message. This message is issued once by any DB2 member who previously issued a DSNB353I message, who is the page set castout owner on one of the objects being recovered.

DSNB357I *csect-name* **AUTOMATIC LPL RECOVERY SUPPRESSED FOR OBJECT TYPE** *object-type* **OBJECT NAME** *object-name* **REASON** *reasoncode*

Explanation: One or more pages in the object that is identified in the message have been added to the logical page list (LPL). However, DB2 cannot initiate automatic LPL recovery due to an environmental condition that prevents automatic LPL recovery.

The object could be a table space, an index space, or a partition within within a table space or an index space that is identified by the *object-type*. *object-name* identifies the name.

If the object is a table space or an index space, the format of the name is *dbname.spacename*. If the object is a partition within a table space or an index space, the format of the name is *dbname.spacename.partitionnumber*. *dbname* is the database name. *spacename* is the table space or the index space name. *partitionnumber* is the partition number.

reason indicates the condition that prevents DB2 from being able to initiate automatic LPL recovery. Here is a list of the potential values for *reason*:

DASD DB2 encountered a DASD I/O error.

RESTART

DB2 is in Restart or End_Restart mode.

GBP DB2 Group Buffer Pool structure failure or 100% loss of connectivity.

System Action: The Automatic LPL Recovery is not initiated.

Programmer Response: Check the reason that is specified to solve the system condition. To recover the LPL page, perform one of the following actions:

- Issue the START DATABASE command with the SPACENAM option
- Run the RECOVER or LOAD utility with REPLACE keyword.

DSNB401I **BUFFERPOOL NAME** *bpname*, **BUFFERPOOL ID** *bpid*, **USE COUNT** *ucount*

Explanation: This message contains the display information that results from a DISPLAY BUFFERPOOL command. For each buffer pool, this message is the first of a set of messages that display information from the DISPLAY BUFFERPOOL command.

The statistics are:

bpname

The buffer pool external name (BP0, BP1, ..., BP49, BP8KB, BP16KB BP32K, BP32K1, ..., BP32K9).

bpid

The buffer pool internal identifier (0-49, 80-89).

ucount

The number of open table spaces or index spaces that refer to this buffer pool. A zero use count means that the buffer pool is inactive.

System Action: Processing continues.

DSNB402I **BUFFERPOOL SIZE = *vpsize* BUFFERS
ALLOCATED = *vpalc* TO BE DELETED
= *vptbd* IN-USE/UPDATED = *vpcba***

Explanation: This message, displayed by the DISPLAY BUFFERPOOL command, describes the allocation status of a buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

vpsize The user-specified buffer pool size

vpalc Number of allocated buffers in an active buffer pool

vptbd Number of buffers to be deleted in an active buffer pool because of pool contraction

vpcba Number of currently active (that is, not stealable) buffers in the buffer pool

System Action: Processing continues.

DSNB404I **THRESHOLDS — VP SEQUENTIAL =
vpseq DEFERRED WRITE = *dwt*
VERTICAL DEFERRED WRT =
dvv1,dvv2 PARALLEL SEQUENTIAL =
vppseqt ASSISTING PARALLEL SEQT =
*vpxpseqt***

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command to describe the user-modifiable thresholds for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The input threshold variables are:

vpseq Sequential steal threshold for the virtual pool, expressed as a percentage of the total buffer pool size.

dwt Free buffer deferred write threshold for the buffer pool, expressed as a percentage of the total buffer pool size.

dvv1 Vertical deferred write threshold for the buffer pool, expressed as a percentage of the total buffer pool size.

dvv2 Vertical deferred write threshold for the buffer pool, expressed as an absolute number of buffers. *dvv2* is used to determine the threshold only if *dvv1* is zero and *dvv2* is non-zero; otherwise *dvv1* is used to determine the threshold.

vppseqt Sequential threshold for parallel query processing, expressed as a percentage of the virtual sequential steal threshold. When the threshold is set to 0, there is no parallel query processing support.

vpxpseqt

Assisting parallel sequential threshold, expressed as a percentage of the sequential threshold for parallel query processing. *vpxpseqt* allows you to control how much buffer resource is used when this DB2 is assisting another member of the group in parallel processing. When the threshold is set to 0, this buffer pool will not be used to assist other data sharing members in processing a query. In a non-data-sharing environment, this value is ignored.

System Action: Processing continues.

DSNB406I **PAGE STEALING METHOD = *pgsteal***

Explanation: This message, displayed by the DISPLAY BUFFERPOOL command, describes the current and pending PGSTEAL attributes. This message is always preceded by message DSNB401I identifying the associated buffer pool.

pgsteal is the page stealing method (PGSTEAL) that is in use for the buffer pool.

LRU Specifies the buffer pool buffers are managed using the least recently used (LRU) algorithm. This is the default.

FIFO Specifies the buffer pool buffers are managed using the first in first out (FIFO) algorithm.

System Action: Processing continues.

DSNB408I **NO DETAIL STATISTICS AVAILABLE
FOR BUFFER POOL *bpname***

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It indicates that no detail statistics are available for the requested buffer pool because the pool was not activated since DB2 startup.

System Action: Processing continues.

DSNB409I **INCREMENTAL STATISTICS SINCE
*basetime***

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL(INTERVAL) option specified. It indicates the start time of the interval for which the statistics were accumulated (that is, either the time of the previous incremental display or the time the buffer pool was first activated, if there was no previous incremental display).

System Action: Processing continues.

DSNB410I CUMULATIVE STATISTICS SINCE
basetime

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL(*) option specified. It indicates the start time of the interval for which the statistics were accumulated (that is, the time the buffer pool was first activated).

System Action: Processing continues.

DSNB411I RANDOM GETPAGE = *rgp* SYNC READ I/O (R) = *srr* SEQ. GETPAGE = *sgp* SYNC READ I/O (S) = *srs* DMTH HIT = *dmt* PAGE-INS REQ = *pir*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists the page read statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

- rgp** Number of nonsequential GETPAGE requests
- srr** Number of synchronous read I/O operations for nonsequential GETPAGE requests
- sgp** Number of sequential GETPAGE requests
- srs** Number of synchronous read I/O operations for sequential GETPAGE requests
- dmt** Number of times data management threshold was hit
- pir** Number of page-ins required for read I/O

System Action: Processing continues.

DSNB412I SEQUENTIAL PREFETCH - REQUESTS = *pft* PREFETCH I/O = *pio* PAGES READ = *pfp*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists the sequential prefetch statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

- pft** Number of times sequential prefetch was requested
- pio** Number of sequential prefetch read I/O operations
- pfp** Number of pages read because of sequential prefetch

System Action: Processing continues.

DSNB413I LIST PREFETCH - REQUESTS = *pft* PREFETCH I/O = *pio* PAGES READ = *pfp*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It shows the list prefetch statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

- pft** Number of times list prefetch was requested
- pio** Number of list prefetch read I/O operations
- pfp** Number of pages read because of list prefetch

System Action: Processing continues.

DSNB414I DYNAMIC PREFETCH - REQUESTS = *pft* PREFETCH I/O = *pio* PAGES READ = *pfp*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists the dynamic prefetch statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

- pft** Number of times dynamic prefetch was requested
- pio** Number of dynamic prefetch read I/O operations
- pfp** Number of pages read because of dynamic prefetch

System Action: Processing continues.

DSNB415I PREFETCH DISABLED - NO BUFFER = *pfd* NO READ ENGINE = *ree*

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists prefetch statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

- pfd** Number of times prefetch was disabled (no buffer)
- ree** Number of times prefetch was disabled (no asynchronous read processor available)

System Action: Processing continues.

DSNB420I **SYS PAGE UPDATES = *sws* SYS
PAGES WRITTEN = *pws* ASYNC WRITE
I/O = *wio* SYNC WRITE I/O = *imw*
PAGE-INS REQ = *pir***

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists page write statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

sws Number of system page updates
pws Number of system pages written
wio Number of asynchronous write I/O operations
imw Number of synchronous write I/O operations
pir Number of page-ins required for write I/O

System Action: Processing continues.

DSNB421I **DWT HIT= *dwt* VERTICAL DWT HIT=*vdw*
NO WRITE ENGINE=*wee***

Explanation: This message is displayed by the DISPLAY BUFFERPOOL command with the DETAIL option specified. It lists page-write statistics for the buffer pool. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The statistics are:

dwt Number of times deferred write threshold was hit
vdw Number of times vertical deferred write threshold was hit
wee Number of times write engine (asynchronous write processor) was not available for I/O operations

System Action: Processing continues.

DSNB440I **PARALLEL ACTIVITY — PARALLEL
REQUEST = *tpa* DEGRADED
PARALLEL = *dpa***

Explanation: This message is issued in response to the DISPLAY BUFFERPOOL command with DETAIL specified. It lists statistics about parallel activities. This message is always preceded by message DSNB401I identifying the associated buffer pool.

The variables are:

tpa Total number of negotiations with the buffer pool for getting the requested number of sequential prefetch streams
dpa Total number of times the negotiation resulted in the degraded mode of parallel operations

DSNB453I **VP CACHED PAGES - CURRENT =
vcount MAX = *mvcount* CHANGED =
ccount MAX = *mccount***

Explanation: This message might be displayed for an active buffer pool by the DISPLAY BUFFERPOOL command with LSTATS specified. It lists the number of cached pages and the number of changed pages in the buffer pool for a data set. The message is only issued if there are nonzero values to display. This message is always preceded by message DSNB401I identifying the associated buffer pool, DSNB464I or DSNB465I identifying the table space or index space, and DSNB466I identifying the data set.

The statistics are:

vcount Number of cached pages in VP for the data set (that is, the number of buffers that contain pages for the data set in the buffer pool).

mvcount

Maximum number of cached pages in VP for the data set since the last DISPLAY BUFFERPOOL command with the LSTATS option was issued.

ccount Number of changed pages in VP for the data set (that is, the number of buffers that were changed in the buffer pool for the data set).

mccount

Maximum number of changed pages in VP for the data set since the last DISPLAY BUFFERPOOL command with the LSTATS option was issued.

This message is issued by the following CSECT:
DSNB1DBP

System Action: Processing continues.

DSNB455I **SYNCHRONOUS I/O DELAYS —
AVERAGE DELAY = *avd* MAXIMUM
DELAY = *mxd* TOTAL PAGES = *tpg***

Explanation: This message might be displayed for an active buffer pool by the DISPLAY BUFFERPOOL command with the LSTATS option specified. It lists synchronous I/O delay statistics for a data set belonging to an open table space or index space associated with the buffer pool. The values listed are incremental since the last display for the data set. The message is only issued if there are nonzero values to display. This message is always preceded by message DSNB401I identifying the associated buffer pool, DSNB464I or DSNB465I identifying the table space or index space, and DSNB466I identifying the relative data set within the table space or index space.

The statistics are:

avd Average I/O delay in milliseconds for pages in the data set

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mxd Maximum I/O delay in milliseconds for pages in the data set

tpg Total number of pages read or written for the data set

System Action: Processing continues.

DSNB456I ASYNCHRONOUS I/O DELAYS — AVERAGE DELAY = *avd* MAXIMUM DELAY = *mxd* TOTAL PAGES = *tpg* TOTAL I/O COUNT = *tio*

Explanation: This message might be displayed for an active buffer pool by the DISPLAY BUFFERPOOL command with the LSTATS option specified. It lists asynchronous I/O delay statistics for a data set belonging to an open table space or index space associated with the buffer pool. The values listed are incremental since the last display for the data set. The message is only issued if there are nonzero values to display. This message is always preceded by message DSNB401I identifying the associated buffer pool, DSNB464I or DSNB465I identifying the table space or index space, and DSNB466I identifying the relative data set within the table space or index space.

The statistics are:

avd Average I/O delay in milliseconds for pages in the data set

mxd Maximum I/O delay in milliseconds for pages in the data set

tpg Total number of pages read or written for the data set

tio Total number of I/Os issued for the data set

System Action: Processing continues.

DSNB459I *csect-name* OPEN FAILURE HAS OCCURRED FOR DATA SET *dsn*

Explanation: This message might be displayed for an active buffer pool by the DISPLAY BUFFERPOOL command with the LIST option specified. It indicates that a previous attempt to access a data set (identified by its relative data set number within a table space or index space) failed due to an allocation or open error.

This message is always preceded by a DSNB401I message identifying the associated buffer pool and a DSNB464I or DSNB465I message identifying the table space or index space.

System Action: Processing continues.

DSNB460I --PAGE SET/PARTITION LIST INFORMATION---DATA SHARING INFO-- TS GBP MEMBER CASTOUT USE P-LOCK DATABASE SPACE NAME PART IX DEP NAME OWNER COUNT STATE

Explanation: This message displays the column headings that indicate the beginning of a multiple line display generated by a DISPLAY BUFFERPOOL command. The format of the multiple line display has three parts:

- The column headers (DSNB460I), which are underlined
- Detailed space information for all spaces and partitions requested by the command (DSNB462I)
- An ending message (DSNB463I) that might be displayed if no spaces matched the command criteria

The text of message DSNB462I provides the detail lines that follow the headings generated by this message. If the DISPLAY BUFFERPOOL LIST command finds more than 255 lines of output to display, the report will be broken up and new headings (DSNB460I) will be displayed with '(CONTINUED)' showing in the heading text. This is needed due to the MVS limitation of 255 messages for multi-line WTO messages.

System Action: Processing continues.

DSNB461I

Explanation: This message appears within a multiple line display generated by a DISPLAY BUFFERPOOL command. It follows message DSNB460I and is used to underline the column headings that are displayed by DSNB460I.

System Action: Processing continues.

DSNB462I *database spacenam part ty gbp mbr castout use p-lock*

Explanation: This message displays the detail lines generated by a DISPLAY BUFFERPOOL command. It follows DSNB460I.

The detail lines contain the following information (for report readability, the fields for DBNAME and SPACE NAME might be blank. When either field is blank, one of the prior detail lines contains the suppressed value).

database

Name of the database that is associated with the page set/partition.

spacenam

Name of the table space or index space.

part

The partition number. It is blank for a simple table space or simple index space. For non partitioned indexes on a partitioned table

space, it is the logical partition number preceded by the character L (for example, L01).

- ty* Whether the object is a table space (TS) or an index space (IX).
- gbp* Whether the page set/partition is GBP-dependent ('Y' for yes; 'N' for no).
- mbr* Name of the member that the detail line pertains to.
- castout* Whether the member identified in this line is the castout owner ('Y' for yes; blank for no).
- use* Number of active claimers or drainers for the page set/partition for the member displayed on this detail line.
- p-lock* P-lock state that the member identified in this line currently holds. Values are:

- IS** R/O interest. There are other members who have interest in this page set/partition. The page set/partition is GBP-dependent.
- IX** R/W interest. There are other members who have interest in this page set/partition. The page set/partition is GBP-dependent.
- S** R/O interest. There may be other members reading the page set/partition. The page set/partition is not GBP-dependent.
- SIX** R/W interest. There may be other members who are reading the page set/partition. The page set/partition is GBP-dependent.
- NSU** R/W interest. The page set/partition is GBP-dependent.
- X** R/W interest. There are no other members accessing the page set/partition. The page set/partition is not GBP-dependent.
- US** A temporary state that can be held by a restarting DB2 when 'waiting for retained locks' is enabled.
- ###** A number that is to be used as a diagnostic aid. A number is displayed only when a DISPLAY BUFFERPOOL command encounters a lock state other than any of those defined above.

System Action: Processing continues.

DSNB463I * NO OBJECTS MATCHED LIST/LSTATS SELECTION CRITERIA**

Explanation: This message appears as part of the DISPLAY BUFFERPOOL output if the command did not find any page sets/partitions that matched the selection criterion. For example, the message would be displayed for DIS BPOOL(BP0) GBPDEP(Y) if the command did not find any page sets/partitions that were GBP-dependent.

User Response: If you expected to see a list of page sets/partitions, ensure that the syntax of the command was coded correctly. Consider adding or changing the filter keywords to obtain a list of page sets/partitions.

System Action: The command terminates normally.

DSNB464I TS USE DATABASE SPACE NAME PART IX COUNT =====
===== =====

Explanation: This message displays underlined column headings that indicate the beginning of a multiple line display generated by a DISPLAY BUFFERPOOL command. The format of the multiple line display has three parts:

- Underlined column headings (DSNB464I).
- Detailed space information for the spaces and partitions that are requested by the command (DSNB465I).
- An ending message (DSNB463I) that may be displayed if no spaces matched the command criteria.

The text of message DSNB465I provides the detail lines that follow the headings generated by this message. If the DISPLAY BUFFERPOOL LIST command finds more than 255 lines of output to display, the report will be broken up and new headings (DSNB464I) will be displayed with '(CONTINUED)' showing in the heading text. This is needed due to the MVS limitation of 255 messages for multi-line WTO messages.

System Action: Processing continues.

DSNB465I database spacenam part ty use

Explanation: This message displays the detail lines generated by the DISPLAY BUFFERPOOL command. It follows DSNB464I.

The detail lines contain the following information (for report readability, the fields for DBNAME and SPACE NAME might be blank. When either field is blank, one of the prior detail lines will contain the suppressed value).

database

Name of the database that is associated with the page set/partition.

spacenam

Name of the table space or index space.

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- part** The partition number. It is blank for a simple table space or simple index space. For non-partitioned indexes on a partitioned table space, it is the logical partition number preceded by the character L
- ty** Whether the object is a table space (TS) or an index space (IX).

System Action: Processing continues.

DSNB466I -----PAGE SET/PARTITION STATISTICS-----

Explanation: This message appears as part of the DISPLAY BUFFERPOOL output if the command was specified with the LSTATS option. It shows statistics for data sets.

System Action: Processing continues.

DSNB467I STATISTICS FOR *type* *dbname.spacenam* DATA SET #: *dsn#* USE COUNT:*ucount*

Explanation: This message might be displayed for an active buffer pool by the DISPLAY BUFFERPOOL command with the LSTATS option specified. It identifies the page set/partition type (table space/index space), database name, space name, number of claimers/drainers and the relative data set number within a table space or index space for the statistics displayed in one or more of the messages that follow this one.

type Whether the page set/partition is a table space (TABLE SPACE) or an index space (INDEX SPACE).

dbname
Database name

spacenam
Name of the table space or index space.

dsn# The relative data set number within a table space or index space for the statistics displayed in one or more of the messages that follow this one.

ucount Number of applications with a claim or drain on the page set/partition.

System Action: Processing continues.

DSNB468I *keyword* KEYWORD IS IGNORED FOR NON-DATA SHARING SYSTEMS

Explanation: The identified keyword is valid only in a data-sharing environment. Keywords GBPDEP and CASTOWNR can cause this message to be displayed.

User Response: Re-enter the command without the keyword since the DB2 is a non-data-sharing DB2.

System Action: The command ignores the keyword and terminates normally.

DSNB469I *keyword1* KEYWORD IS IGNORED WHEN *keyword2* KEYWORD IS SPECIFIED

Explanation: Keyword1 is incompatible with keyword2. For example, in command DIS BPOOL(BP0) GBPDEP(Y) LSTATS(*), keyword GBPDEP indicates that a list of page sets or partitions are desired (as in LIST keyword); however, keyword GBPDEP is ignored because LIST and LSTATS are two different reports.

User Response: Omit keyword1 if keyword2 is used on the next entry of the command.

System Action: The command ignores keyword1 and terminates normally.

DSNB499I DISPLAY TERMINATED DUE TO INSUFFICIENT MESSAGE SPACE

Explanation: The DISPLAY BUFFERPOOL or the DISPLAY GROUPBUFFERPOOL command was unable to obtain storage for additional messages. This should only happen for a particularly long display request, such as a detail display for a large number of buffer pools or group buffer pools.

System Action: The display is truncated.

System Programmer Response: Reissue the -DISPLAY BUFFERPOOL or the -DISPLAY GROUPBUFFERPOOL command, specifying a smaller number of buffer pools or group buffer pools.

DSNB501I *bpname* IS NOT A VALID BUFFER POOL NAME

Explanation: An invalid buffer pool name was specified on an ALTER BUFFERPOOL or DISPLAY BUFFERPOOL command. THE VALID NAMES ARE BP0, BP1,..., BP49, BP32K, BP32K1,...BP32K9.

System Action: The request is rejected.

System Programmer Response: Reissue the ALTER BUFFERPOOL or DISPLAY BUFFERPOOL command, specifying a valid buffer pool name.

DSNB502I *csect-name* VPSIZE FOR *bpname* MUST BE BETWEEN *llimit* AND *ulimit*

Explanation: An attempt was made to change a buffer pool's VPSIZE to an invalid value using the ALTER BUFFERPOOL command. VPSIZE is the number of buffers in the buffer pool.

bpname
Buffer pool name.

llimit Lower limit for buffer pool's VPSIZE. For BP0, the lower limit is 2000. For BP8K0, the lower

limit is 1000. For BP16K0, the lower limit is 500. For all other buffer pools, the lower limit is 0.

- ulimit** Upper limits for buffer pool's VPSIZE. The upper limit is as follows:
- 250000000 for 4KB page-size buffer pools
 - 125000000 for 8KB page-size buffer pools
 - 62500000 for 16KB page-size buffer pools
 - 31250000 for 32KB page-size buffer pools

System Action: The request is rejected.

System Programmer Response: Reissue the ALTER BUFFERPOOL command, specifying a legitimate VPSIZE value.

DSNB504I VPSEQT FOR *bpname* MUST BE BETWEEN 0 AND 100

Explanation: An ALTER BUFFERPOOL command was issued to try to alter a buffer pool's VPSEQT attribute to an invalid value. VPSEQT is the buffer pool sequential steal threshold. Valid values range from 0 to 100.

System Action: The request is rejected.

System Programmer Response: Reissue the ALTER BUFFERPOOL command, specifying a legitimate VPSEQT value.

DSNB506I DWQT FOR *bpname* MUST BE BETWEEN 0 AND 90

Explanation: An attempt was made to change a buffer pool's DWQT attribute value using the ALTER BUFFERPOOL command. DWQT is the free buffer deferred write threshold. Valid values range from 0 to 90.

System Action: The request is rejected.

System Programmer Response: Reissue the ALTER BUFFERPOOL command, specifying a legitimate DWQT value.

DSNB507I VDWQT FOR *bpname* MUST BE BETWEEN 0 AND 90

Explanation: An attempt was made to change a buffer pool's VDWQT attribute to an invalid value using the ALTER BUFFERPOOL command. VDWQT is the vertical deferred write threshold. Valid values range from 0 to 90.

System Action: The request is rejected.

System Programmer Response: Reissue the ALTER BUFFERPOOL command, specifying a legitimate VDWQT value.

DSNB508I *csect-name* THE TOTAL VPSIZE IS BEYOND THE MAXIMUM LIMIT

Explanation: An ALTER BUFFERPOOL command specified a VPSIZE or VPTYPE value that would cause the sum of the *ssnm*DBM1 address space storage requirements for all buffer pools to exceed 1TB. When calculating the storage requirements for the buffer pools, DB2 uses the page size (4K, 8K, 16K, or 32K) for each pool buffer.

System Action: The buffer pool's VPSIZE or VPTYPE is not changed. Processing for other parameters, if requested, proceeds normally.

System Programmer Response: Rebalance VPSIZE for all buffer pools.

DSNB510I NO ACTION REQUESTED

Explanation: An ALTER BUFFERPOOL command was issued, but no buffer pool attributes were specified.

System Action: The buffer pool's attributes are not changed.

System Programmer Response: Reissue the ALTER BUFFERPOOL command specifying one or more buffer pool attributes.

DSNB511I VDWQT CANNOT BE GREATER THAN DWQT

Explanation: An ALTER BUFFERPOOL command specified a DWQT and/or VDWQT value that would result in the buffer pool's VDWQT parameter being greater than its DWQT parameter.

System Action: The buffer pool's VDWQT or DWQT is not changed. Processing for other parameters, if requested, proceeds normally.

System Programmer Response: Rebalance DWQT and VDWQT for the buffer pool.

DSNB512I *integer* IS THE CURRENT VPSIZE FOR BUFFER POOL *bpname*

Explanation: An ALTER BUFFERPOOL command specified a VPSIZE equal to the buffer pool's current buffer pool size.

System Action: The buffer pool size is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB514I *integer* IS THE CURRENT VPSEQT FOR BUFFER POOL *bpname*

Explanation: An ALTER BUFFERPOOL command specified an VPSEQT equal to the current sequential steal threshold of the buffer pool.

System Action: The buffer pool sequential threshold

is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB516I *integer* IS THE CURRENT DWQT FOR BUFFER POOL *bpname*

Explanation: An ALTER BUFFERPOOL command specified a DWQT equal to the current deferred write threshold of the buffer pool.

System Action: The deferred write threshold of the buffer pool is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB517I *int1,int2* IS THE CURRENT VDWQT FOR BUFFER POOL *bpname*

Explanation: An ALTER BUFFERPOOL command specified a VDWQT equal to the current vertical deferred write threshold of the buffer pool.

System Action: The vertical deferred write threshold of the buffer pool is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB519I *csect-name* PGSTEAL FOR *bpname* HAS BEEN SET TO *value*.

Explanation: This message is issued in response to an ALTER BUFFERPOOL command to indicate that the requested change to the PGSTEAL parameter was accepted.

bpname is the name of the buffer pool.

value is one of the following:

LRU The buffer pool buffers are managed using the least recently used (LRU) algorithm. This is the default.

FIFO The buffer pool buffers are managed using the first in first out (FIFO) algorithm.

System Action: Processing continues.

DSNB520I READY TO EXPLICITLY DELETE BUFFER POOL *bpname*

Explanation: This message is issued before draining an active buffer pool in response to an ALTER BUFFERPOOL command, which specified VPSIZE=0 against an active buffer pool.

System Action: After this message is issued, DB2 quiesces all current activities against this buffer pool. DB2 locks the table space exclusively and performs physical close for all open table spaces or index spaces that reference this pool. DB2 also prevents subsequent database access that references this pool. SQL applications get an SQLCODE -904 (resource not available) with reason code 00C200E0 to indicate that the requested buffer pool size is not initialized. After the

requested buffer pool is deleted, message DSNB521I is issued.

DSNB521I BUFFER POOL *bpname* HAS BEEN EXPLICITLY DELETED

Explanation: This message is issued after an active buffer pool is explicitly deleted with an ALTER BUFFERPOOL command. This message is always preceded by a corresponding DSNB520I message.

System Action: The virtual storage and hiperspaces associated with this buffer pool are released.

DSNB522I VPSIZE FOR *bpname* HAS BEEN SET TO *integer*

Explanation: This message is issued in response to an ALTER BUFFERPOOL command to indicate that the requested change to the VPSIZE parameter was accepted. For an active pool, the actual expansion, contraction, or deletion does not take place until after this message is issued.

System Action: Processing continues.

System Programmer Response: Issue the DISPLAY BUFFERPOOL command to determine the actual virtual storage usage for this pool.

DSNB524I VPSEQT FOR *bpname* HAS BEEN SET TO *integer*

Explanation: This message is issued in response to an ALTER BUFFERPOOL command. It indicates the successful modification of the sequential steal threshold of the buffer pool.

DSNB526I DWQT FOR *bpname* HAS BEEN SET TO *integer*

Explanation: This message is issued in response to an ALTER BUFFERPOOL command. It indicates the successful modification of the deferred write threshold of the buffer pool.

DSNB527I VDWQT FOR *bpname* HAS BEEN SET TO *int1,int2*

Explanation: This message is issued in response to an ALTER BUFFERPOOL command. It indicates the successful modification of the vertical deferred write threshold of the buffer pool.

DSNB529I VPPSEQT FOR *bpname* HAS BEEN SET TO *integer*

Explanation: This message is issued in response to the ALTER BUFFERPOOL command. It indicates the successful modification of the parallel sequential steal threshold of the buffer pool.

DSNB530I *integer* IS THE CURRENT VPPSEQT FOR BUFFER POOL *bpname*

Explanation: An ALTER BUFFERPOOL command specified a VPPSEQT equal to the current parallel sequential steal threshold of the buffer pool.

System Action: The parallel sequential steal threshold of the buffer pool is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB531I VPPSEQT FOR *bpname* MUST BE BETWEEN 0 AND 100

Explanation: An ALTER BUFFERPOOL command was issued to alter a buffer pool's VPPSEQT attribute to an invalid value. VPPSEQT is the parallel sequential steal threshold of the buffer pool. Valid values range from 0 to 100.

System Action: The VPPSEQT value is not changed.

System Programmer Response: Change the VPPSEQT attribute to a valid value and reenter the command.

DSNB532I VPXPSEQT FOR *bpname* HAS BEEN SET TO *integer*

Explanation: This message is issued from DSNB1ABP csect in response to the ALTER BUFFERPOOL command. It indicates the successful modification of the assisting parallel sequential threshold of the buffer pool.

DSNB533I *integer* IS THE CURRENT VPXPSEQT FOR BUFFER POOL *bpname*

Explanation: An ALTER BUFFERPOOL command specified a VPXPSEQT equal to the current assisting parallel sequential threshold of the buffer pool.

System Action: The assisting parallel sequential threshold of the buffer pool is not changed. Processing for other parameters, if requested, proceeds normally.

DSNB534I VPXPSEQT FOR *bpname* MUST BE BETWEEN 0 AND 100

Explanation: An ALTER BUFFERPOOL command was issued to change a buffer pool's VPXPSEQT attribute to an invalid value. VPXPSEQT is the assisting parallel sequential threshold of the virtual buffer pool. Valid values range from 0 to 100. This message is issued from DSNB1ABP csect.

System Action: The VPXPSEQT value is not changed.

System Programmer Response: Change the VPXPSEQT attribute to a valid value and reenter the command.

DSNB536I *csect-name* THE TOTAL VIRTUAL BUFFER POOL STORAGE EXCEEDS THE REAL STORAGE CAPACITY

Explanation: This message is issued as a warning that the total amount of allocated virtual buffer pool storage for this DB2 subsystem has exceeded the real storage capacity of the z/OS image. The amount of real storage should be at least as much as the total amount of virtual buffer pool storage, and should also be enough to accommodate the EDM pool and DB2 working storage in addition to the virtual buffer pool storage. Paging activity in the buffers is an indication of a performance problem.

System Action: Processing continues.

System Programmer Response: Allocate more real storage to the z/OS image. If there is not enough real storage to hold the buffers, then the number of buffers needs to be reduced. This might mean fewer concurrent users. If the number of buffers is reduced, then DB2 will issue the DSNB538I message when the total amount of virtual buffer pool storage no longer exceeds the real storage capacity.

DSNB538I *csect-name* THE TOTAL BUFFER POOL STORAGE NO LONGER EXCEEDS THE REAL STORAGE CAPACITY

Explanation: This message is issued following a previous DSNB536I message to indicate that the total amount of allocated buffer pool storage for this DB2 subsystem no longer exceeds the real storage capacity of the z/OS image.

System Action: Processing continues.

DSNB539I KEYWORD *keyw-oid* IS NO LONGER SUPPORTED. THE SPECIFIED VALUE IS IGNORED.

Explanation: An ALTER BUFFERPOOL command specified a keyword that is no longer supported.

System Action: The keyword and its specified value are ignored. Processing for other parameters, if requested, proceeds normally.

DSNB540I *csect-name* INSUFFICIENT LOCAL CACHE VECTOR STORAGE TO EXPAND BUFFER POOL *bpname* TO SPECIFIED SIZE *size1*. BUFFER POOL SIZE IS NOW *size2*.

Explanation: The specified buffer pool could not be expanded to the requested size (*size1*). The associated group buffer pool is connected, and the local cache vector could not be expanded to cover the requested buffer pool size.

The local cache vector is a bit array which tracks whether the page in a given buffer was modified by

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another system (cross-invalidated). There must be one bit in the vector for each buffer in the buffer pool. For more information on the local cache vector, see *MVS/ESA Programming: Sysplex Services Reference*.

System Action: DB2 downgrades the expansion request to the size that can be supported by the available local cache vector storage (*size2*).

System Programmer Response: Free local cache vector storage by contracting or deleting other buffer pools that are connected to a group buffer pool. Then reattempt the pool expansion by reissuing the ALTER BUFFERPOOL command.

DSNB551I **BSDS READ ERROR, RC= *integer*, RSN=*integer***

Explanation: This message is issued in response to a failure of a READ function on the bootstrap data set (BSDS). Users should check any previous error messages issued by MVS and DB2 against the corresponding BSDS. RC and RSN indicate an error return code and reason code from the BSDS function.

System Action: Processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the return and reason codes to determine what type of error occurred. Refer to message DSNJ1071 for more information.

DSNB552I **BSDS WRITE ERROR, RC= *integer*, RSN= *integer***

Explanation: This message is issued in response to a failure of a WRITE function on the bootstrap data set (BSDS). Check any previous error messages issued by MVS and DB2 against the corresponding BSDS. RC and RSN indicate an error return code and reason code from the BSDS function.

System Action: Processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the return and reason codes to determine what type of error occurred. Refer to message DSNJ1081 for more information.

DSNB553I **BSDS INSERT ERROR, RC= *integer*, RSN= *integer***

Explanation: This message is issued in response to a failure of an INSERT function on the bootstrap data set (BSDS). Check any previous error messages issued by MVS and DB2 against the corresponding BSDS. RC and RSN indicate an error return code and reason code from the BSDS function.

System Action: Processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the return and reason codes to determine what type of error occurred. For more information, refer to message DSNJ109I or other DSNJ messages related to BSDS.

DSNB601I **BUFFER POOL *bpname* FULL**

Explanation: A buffer is required to access a database page that is not currently contained within the buffer pool. A buffer cannot be assigned because all buffers in the buffer pool are in a nondisplaceable state. (Buffers are in a nondisplaceable state when they contain actively referenced pages or updated pages for which writes are pending.)

This message can occur if there is an overload of concurrent activity for the buffer pool size. The variable *bpname* is the buffer pool external name.

System Action: Reason code 00C200E9 and the buffer pool external name are recorded in the cursor table (CT), which is available in the SQL communication area (SQLCA) or messages. An SQLCODE -904 (resource not available) is returned to the user.

Operator Response: Notify the system programmer.

System Programmer Response: Do one of the following:

- Reduce concurrent activity by reducing the number of DB2 threads.
- Use the ALTER BUFFERPOOL command to increase the size of the buffer pool.

DSNB602I **UNABLE TO CREATE BUFFER POOL *bpname*. BUFFER POOL SIZE IS ZERO**

Explanation: An attempt to create the buffer pool failed while opening a DB2 table space or index that specified its use. The buffer pool size for *bpname* was zero. This indicates that the use of the pool is invalid.

System Action: Reason code 00C200E0 and the buffer pool external name are recorded in the cursor table (CT), which is available in the SQL communication area (SQLCA) or messages. An SQLCODE -904 (resource not available) is returned to the user.

Operator Response: Notify the system programmer.

System Programmer Response: Use the ALTER TABLESPACE or ALTER INDEX statement to modify affected table spaces or indexes to indicate a usable buffer pool. Use the DISPLAY BUFFERPOOL command to determine a usable buffer pool. If necessary, use the ALTER BUFFERPOOL command to activate the failing buffer pool by setting its VPSIZE to a nonzero value.

DSNB603I **INSUFFICIENT STORAGE TO
CREATE/EXPAND BUFFER POOL
bpname TO SPECIFIED SIZE integer.
BUFFER POOL SIZE IS NOW integer.**

Explanation: A buffer pool could not be created or expanded to the requested size. Insufficient storage exists within the *ssnmDBM1* address space to build the buffer pool. The buffer pool size is set by the ALTER BUFFERPOOL command and can be queried by using the DISPLAY BUFFERPOOL command.

System Action: The buffer pool is created or expanded to the size allowed by the available storage. If the buffer pool cannot be created at all, and the creation request was triggered by a page set open by an application, then an SQLCODE -904 (resource not available) is returned to the user. Reason code 00C200E8 and the buffer pool external name are recorded in the cursor table (CT), which is available in the SQL communication area (SQLCA) or messages.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the storage content of the *ssnmDBM1* address space to determine further action. If appropriate, use the ALTER TABLESPACE or ALTER INDEX statement to use a different buffer pool. Otherwise, use ALTER BUFFERPOOL commands to balance storage use for all buffer pools.

DSNB605I **UNABLE TO CREATE BUFFER POOL
bpname TO SPECIFIED SIZE DURING
STARTUP/RESTART. INSUFFICIENT
VIRTUAL STORAGE**

Explanation: An attempt to create the buffer pool failed at the time that DB2 was performing its startup or restart processing. Insufficient virtual storage exists within the *ssnmDBM1* address space for building the buffer pool. The name of the buffer pool is *bpname*.

System Action: The buffer pool is not created. The table space or index open request, which triggered the attempt to create the buffer pool, fails. An SQLCODE -904 (resource not available) is returned to the user. Reason code 00C200E8 and the buffer pool external name are recorded in the cursor table (CT), which is available in the SQL communication area (SQLCA) or messages.

Operator Response: Notify the system programmer. This message remains on the console until the operator deletes it.

System Programmer Response: Analyze the virtual storage content of the DSNDBM1 *ssnmDBM1* address space to determine further action. If appropriate, use ALTER BUFFERPOOL commands to balance virtual storage use for all buffer pools.

DSNB609I **BUFFER POOL bpname CREATED
USING DEFAULT SIZE integer DURING
STARTUP/RESTART. BUFFER POOL
SIZE IS ZERO**

Explanation: While activating a buffer pool during DB2 startup or restart processing, the buffer pool size was zero. A zero value might be caused by an unusable bootstrap data set (BSDS) or by a DB2 abnormal termination after buffer pool size was altered to zero. The name of the buffer pool is *bpname* and the default buffer pool size is *integer*.

System Action: DB2 creates the buffer pool using the startup restart default value. For 4KB/32KB page-type buffer pools, the default values are 1000 and 12, respectively.

Operator Response: Notify the system programmer. This message remains on the console until deleted by the operator.

System Programmer Response: Use the ALTER TABLESPACE or ALTER INDEX statement to modify the affected table spaces or indexes to indicate a usable buffer pool. To determine a usable buffer pool, use the DISPLAY BUFFERPOOL command. If necessary, use the ALTER BUFFERPOOL command to activate the failing buffer pool by setting the VPSIZE to a nonzero value.

DSNB610I **csect-name MAXIMUM ALLOCATABLE
BUFFER POOL STORAGE OF int1MB
HAS BEEN REACHED. UNABLE TO
CREATE/EXPAND BUFFER POOL
bp-name TO SPECIFIED SIZE int2.
BUFFER POOL IS NOW int3**

Explanation: A buffer pool could not be created or expanded to the requested size. The maximum amount of allowable buffer pool storage, indicated by *int1*, has been reached. The maximum allowable buffer pool storage is calculated to be twice the amount of real storage that is available on the z/OS image, or 1TB, whichever is less.

bpname

Indicates the name of the buffer pool that was affected.

int2

Indicates the size of the buffer pool that was requested.

int3

Indicates the actual size of the buffer pool that was created/expanded.

System Action: The buffer pool is created or expanded to the size allowed by the available storage within the maximum. If the maximum has already been reached, then the buffer pool is allocated at a minimum size as follows:

- 2,000 pages for 4K page size
- 1,000 pages for 8K page size

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- 500 pages for 16K page size
- 250 pages for 32K page size

Once the maximum has been reached, buffer pool sizes are not allowed to be increased.

System Programmer Response: Analyze the buffer pool sizes and determine if any can be decreased, or consider adding more memory.

DSNB740I *csect-name* **ATTEMPTING TO ESTABLISH DUPLEXING FOR GROUP BUFFER POOL** *gbpname* **REASON =** *reason*

Explanation: DB2 has been requested to establish duplexing for the named group buffer pool. *reason* indicates the reason why duplexing was initiated. *reason* can be one of the following:

OPERATOR

The operator initiated a SETXCF command to initiate duplexing.

POLICY

The currently active CFRM policy indicated that duplexing should be automatically established for the group buffer pool.

This message is issued by each DB2 member participating in establishing duplexing.

System Action: The DB2 members that are actively connected to the named group buffer pool participate in establishing duplexing for the group buffer pool. Access to the group buffer pool is quiesced while duplexing is being established.

DSNB741I *csect-name* **DUPLEXING COULD NOT BE ESTABLISHED FOR GROUP BUFFER POOL** *gbpname* **REASON =** *reason*

Explanation: DB2 was unable to establish duplexing for the named group buffer pool. *reason* indicates the DB2 reason code indicating why duplexing could not be established.

System Action: The group buffer pool goes back to simplex mode.

System Programmer Response: See the explanation for the reason code given.

DSNB742I *csect-name* **DUPLEXING HAS BEEN SUCCESSFULLY ESTABLISHED FOR GROUP BUFFER POOL** *gbpname*

Explanation: The process to establish duplexing for the named group buffer pool has successfully completed.

This message is preceded by message DSNB740I which indicates the reason why duplexing was initiated.

This message is issued by each DB2 member participating in establishing duplexing.

System Action: Processing of mainline requests is resumed for the group buffer pool. Writes of changed pages to the group buffer pool will be duplexed writes from this point forward.

DSNB743I *csect-name* **DUPLEXING IS BEING STOPPED FOR GROUP BUFFER POOL** *gbpname* **FALLING BACK TO PRIMARY REASON =** *reason1* **DB2 REASON CODE =** *reason2*

Explanation: Duplexing is being stopped for the named group buffer pool. To stop the duplexing, the secondary group buffer pool will be deallocated, and DB2 will go back to simplex mode on the primary group buffer pool.

reason1 indicates why duplexing was stopped:

OPERATOR

The operator initiated an MVS command to stop duplexing.

POLICY

A new CFRM policy has been activated which specifies DUPLEX(DISABLED) for the group buffer pool.

LOSSCONNSEC

One or more of the DB2 members lost connectivity to the secondary group buffer pool structure.

STRFAILSEC

The secondary group buffer pool structure failed.

DB2REASON

DB2 decided to stop duplexing. The reason code given in *reason2* indicates why DB2 stopped duplexing.

DUPCONNCHG

Duplexing rebuild stopped because of insufficient connectivity due to a change in the set of connectors.

If *reason1* indicates 'DB2REASON', then *reason2* specifies a DB2 reason code that indicates why DB2 stopped duplexing. If *reason1* is not 'DB2REASON', then *reason2* is zero.

This message is issued by each DB2 member connected to the duplexed group buffer pool.

System Action: The secondary group buffer pool structure is discarded, and DB2 enters back into simplex mode on the primary group buffer pool structure. If DUPLEX(AUTO) is specified in the active CFRM policy for the group buffer pool, then duplexing will be automatically reinitiated, if duplexing is still possible.

System Programmer Response: If the rebuild stopped because of "DB2REASON", see the explanation for the reason code given. If duplexing is not automatically reinitiated and duplexing is desired for the group buffer pool, then use the MVS SETXCF command to reestablish duplexing.

DSNB744I *csect-name* **DUPLEXING IS BEING STOPPED FOR GROUP BUFFER POOL *gbpname*, SWITCHING TO SECONDARY REASON = *reason1* DB2 REASON CODE = *reason2***

Explanation: Duplexing is being stopped for the named group buffer pool. To stop the duplexing, the primary group buffer pool will be deallocated, and DB2 will switch to the the secondary group buffer pool to go back to simplex mode.

reason1 indicates why duplexing was stopped:

OPERATOR

The operator initiated an MVS command to stop duplexing.

POLICY

A new CFRM policy has been activated which specifies DUPLEX(DISABLED) for the group buffer pool.

LOSSCONNPRI

One or more of the DB2 members lost connectivity to the primary group buffer pool structure.

STRFAILPRI

The primary group buffer pool structure failed.

DB2REASON

DB2 decided to stop duplexing. The reason code given in *reason2* indicates why DB2 stopped duplexing.

If *reason1* indicates 'DB2REASON', then *reason2* specifies a DB2 reason code that indicates why DB2 stopped duplexing. If *reason1* is not 'DB2REASON', then *reason2* is zero.

This message is issued by each DB2 member connected to the duplexed group buffer pool.

System Action: The primary group buffer pool structure is discarded, and DB2 enters back into simplex mode on the secondary group buffer pool structure. If DUPLEX(ENABLED) is specified in the active CFRM policy for the group buffer pool, then duplexing will be automatically reinitiated, if duplexing is still possible.

System Programmer Response: If the rebuild stopped because of "DB2REASON", see the explanation for the reason code given. If duplexing is not automatically reinitiated and duplexing is desired for the group buffer pool, then use the MVS SETXCF

command to reestablish duplexing.

DSNB745I *csect-name* **THE TRANSITION BACK TO SIMPLEX MODE HAS COMPLETED FOR GROUP BUFFER POOL *gbpname***

Explanation: The named group buffer pool has completed the transition from duplex mode back to simplex mode.

This message is preceded either by message DSNB743I or by message DSNB744I which indicates the reason why duplexing was stopped. This message is issued by each DB2 member connected to the group buffer pool.

System Action: The group buffer pool is now back in simplex mode which means that writes of changed pages to the group buffer pool are now simplexed. If DUPLEX(ENABLED) is specified in the active CFRM policy for the group buffer pool, then duplexing will be automatically reinitiated, if duplexing is still possible. This would mean that the group buffer pool is only temporarily back into simplex mode (it is soon to be entered back into duplex mode).

DSNB749I **GBPCACHE NO IS NOT ALLOWED FOR GROUP BUFFER POOL *gbpname* BECAUSE IT IS DUPLEXED**

Explanation: This message is issued in response to an ALTER GROUPBUFFERPOOL command that requests a change of the GBPCACHE attribute from YES to NO, but because the group buffer pool is duplexed, the change from YES to NO is not allowed.

System Action: The request to change from GBPCACHE(YES) to GBPCACHE(NO) is rejected.

System Programmer Response: GBPCACHE(NO) and duplexing are mutually exclusive. If you want GBPCACHE(NO), then you must put the group buffer in simplex mode before specifying GBPCACHE(NO). To put a duplexed group buffer pool in simplex mode, do any of the following procedures:

- Activate a new CFRM policy that specifies DUPLEX(DISABLED) for the group buffer pool. This is the preferred method if you do not intend to duplex the group buffer pool again for awhile.
- Ensure that DUPLEX(AUTO) is not specified in the active CFRM policy for the group buffer pool, and then issue the MVS command SETXCF STOP,REBUILD,DUPLEX.

DSNB750I **DISPLAY FOR GROUP BUFFER POOL *gbpname* FOLLOWS**

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command. It signals the beginning of a display for group buffer pool *gbpname* if the following are true:

- It meets the selection criteria on the command.

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- The MVS CFRM administrative policy information for the group buffer pool is accessible.

If the CFRM policy information is unavailable, message DSNB751I signals the partial display of group buffer pool information.

The series of messages DSNB755I through DSNB759I provide information on the group buffer pool's allocation characteristics. Messages DSNB765I through DSNB769I provide information on DB2 connections to the group buffer pool, while DSNB770I through DSNB788I provide statistics on group buffer pool usage. Note that all message numbers in the range might not be used. Message DSNB790I ends the display.

DSNB751I MVS CFRM POLICY INFORMATION NOT AVAILABLE FOR GROUP BUFFER POOL *gbpname* MVS IXCQUERY RETURN CODE = *retcode* MVS IXCQUERY REASON CODE = *reason* A PARTIAL DISPLAY FOLLOWS

Explanation: DB2 could not retrieve group buffer pool policy information in response to a DISPLAY GROUPBUFFERPOOL command. Either the MVS query request (IXCQUERY) did not successfully complete, or the backing structure for the group buffer pool is not defined in the MVS CFRM administrative policy. To determine the exact reason, examine return code *retcode* and reason code *reason* returned by MVS on the query request. For an explanation of the IXCQUERY codes, see *MVS/ESA Programming: Sysplex Services Reference*. If the IXCQUERY request did not complete successfully, no CONNLIST information, even if requested, is provided.

System Action: Processing continues, but the information displayed is incomplete.

DSNB752I GROUP DETAIL STATISTICS ARE NOT AVAILABLE FOR THE GROUP BUFFER POOL BECAUSE A REBUILD IS IN PROGRESS

Explanation: Because a rebuild is in progress for the group buffer pool, DB2 cannot retrieve group buffer pool group (GDETAIL) statistics in response to a DISPLAY GROUPBUFFERPOOL command. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

System Action: Processing continues.

DSNB753I GROUP BUFFER POOL STRUCTURE OWNER INFORMATION NOT AVAILABLE IRLM NOTIFY RETURN CODE = *retcode* IRLM NOTIFY REASON CODE = *reason*

Explanation: DB2 could not retrieve group buffer pool structure owner information for message DSNB798I

because the IRLM Notify request did not successfully complete. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

retcode Return code from IRLM on the Notify request

reason Reason code from IRLM on the Notify request

For an explanation of IRLM return and reason codes, see Chapter 60, "IRLM error return and reason codes," on page 1327.

System Action: Processing continues.

DSNB755I DB2 GROUP BUFFER POOL STATUS CONNECTED = *status1* CURRENT DIRECTORY TO DATA RATIO = *ratio1* PENDING DIRECTORY TO DATA RATIO = *ratio2* CURRENT GBPCACHE ATTRIBUTE = *gcache1* PENDING GBPCACHE ATTRIBUTE = *gcache2*

Explanation: In response to a DISPLAY GROUPBUFFERPOOL command, this is the first of two messages displaying information about the status of the group buffer pool as it is known to DB2. This message is followed by DSNB756I. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

status1 Whether this DB2 is connected to the group buffer pool:

YES This DB2 is actively connected to the group buffer pool.

NO This DB2 is not actively connected to the group buffer pool.

ratio1 The ratio of directory entries to data pages, as specified for the current allocation of this group buffer pool. If the group buffer pool is not currently allocated, this field contains blanks.

ratio2 The desired ratio of directory entries to data pages to take effect at the next reallocation of the group buffer pool.

gcache1 The GBPCACHE attribute as specified for the current allocation of this group buffer pool.

gcache2 The value for GBPCACHE attribute that will take effect at the next reallocation of the group buffer pool.

DSNB756I CLASS CASTOUT THRESHOLD =
threshold1 % **GROUP BUFFER POOL**
CASTOUT THRESHOLD = *threshold2* %
GROUP BUFFER POOL CHECKPOINT
INTERVAL = *interval* **MINUTES**
RECOVERY STATUS = *status1*
AUTOMATIC RECOVERY =
auto-rec-parm

Explanation: This is the second of two messages displaying information about the status of the group buffer pool as it is known to DB2. If DB2 was successful in getting MVS CFRM policy information for the group buffer pool, messages DSNB757I through DSNB759I immediately follow this message. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

threshold1

The threshold at which class castouts are to be initiated. It is expressed as a percentage of the group buffer pool size.

threshold2

The threshold at which castout is to be initiated at the group buffer pool level. It is expressed as a percentage of the group buffer pool size.

interval The time, in minutes, between successive initiations of group buffer pool checkpoint.

status1 The recovery status for the group buffer pool:

DAP Damage assessment pending. DB2 is in the process of doing damage assessment for the group buffer pool in response to a coupling facility structure failure. The group buffer pool is temporarily stopped internally by DB2 and is unavailable for use until the damage assessment process completes.

NORMAL

There is no pending recovery action for this group buffer pool.

auto-rec-parm

Automatic recovery parameter specification:

YES DB2 should automatically initiate recovery for the objects using this group buffer pool following a failure of the group buffer pool. This is the default.

NO DB2 should not initiate automatic group buffer pool recovery. If the group buffer pool fails, you must manually issue DB2 -START DATABASE commands to do the recovery.

DSNB757I MVS CFRM POLICY STATUS FOR
structure-name = *status2* **MAX SIZE**
INDICATED IN POLICY = *psize* **KB**
DUPLEX INDICATOR IN POLICY =
dupstat **CURRENT DUPLEXING MODE =**
dupmode **ALLOCATED =** *status1*

Explanation: For a DISPLAY GROUPBUFFERPOOL command, this message gives the status for the structure associated with the group buffer pool. It is displayed only if DB2 was successful in querying the MVS CFRM administrative policy. It is immediately preceded by message DSNB756I, and if the structure is allocated, followed by messages DSNB758I and DSNB759I. A preceding DSNB750I message identifies the associated group buffer pool.

structure-name

The coupling facility structure name for this group buffer pool, such as DSNCAT_GBP0.

status2 MVS global status of the backing coupling facility structure:

NORMAL

Structure is defined in the current CFRM policy and has no current MVS restrictions.

CHNGP

Change pending in the structure policy.

dupstat The duplexing attribute for the coupling facility structure, as indicated by the DUPLEX parameter in the CFRM policy definition.

DISABLED

DUPLEX(DISABLED) is specified for the coupling facility structure. The DUPLEX parameter is not specified.

ENABLED

DUPLEX(ENABLED) is specified for the coupling facility structure.

ALLOWED

DUPLEX(ALLOWED) is specified for the coupling facility structure.

dupmode

Indication of current status of the group buffer pool in relation to duplexing.

SIMPLEX

Group buffer pool is currently in simplex mode.

DUPLEX

Group buffer pool is currently in duplex mode.

INTRAN

Group buffer pool is currently in a transition state. Either from simplex mode to duplex mode, or from duplex mode to simplex mode. The rebuild

status indicator in message DSNB758I gives information about the transition state.

psize The size (in kilobytes) of the coupling facility structure as indicated in the CFRM policy definition.

status1 Whether the backing coupling facility structure is currently allocated:

YES The coupling facility structure is allocated in a coupling facility.

NO The coupling facility structure is not allocated in any coupling facility.

DSNB758I **ALLOCATED SIZE = *asize* KB**
VOLATILITY STATUS = *volstat* REBUILD STATUS = *rblstat* CFNAME = *cfname*
CFLEVEL - OPERATIONAL = *cflevel1*
CFLEVEL - ACTUAL = *cflevel2*

Explanation: This message is the first of two messages giving the allocation details for the group buffer pool on a DISPLAY GROUPBUFFERPOOL command. It is issued only if DB2 determines, by successfully querying the MVS CFRM policy, that the group buffer pool is allocated. It is immediately preceded by message DSNB757I. A preceding DSNB750I message identifies the associated group buffer pool.

asize The actual allocated group bufferpool structure size (in kilobytes).

volstat The volatility status of the backing group buffer pool structure for this group buffer pool:

VOLATILE

The backing coupling facility structure is volatile.

NON-VOLATILE

The backing coupling facility structure is non-volatile.

rblstat Indication of whether or not rebuild is in progress for the group buffer pool structure, and if so, which part of the rebuild process is happening:

NONE Rebuild is not in progress.

QUIESCE

Rebuild is in progress and the rebuild is currently in the rebuild quiesce phase.

CONNECT

Rebuild is in progress and the rebuild is currently in the rebuild connect phase.

CLEANUP

The rebuild has completed, and the connected DB2 members are making

final preparations to use the new group buffer pool structure. If the duplexing status in message DSNB757I indicates 'INTRAN', then the 'CLEANUP' indication means that DB2 is in the final stages of transitioning from duplex mode back to simplex mode, switching to the secondary group buffer pool.

STOPPING

The rebuild is stopping, and the connected DB2 members are making preparations to fall back to the original group buffer pool structure. If the duplexing status in message DSNB757I indicates 'INTRAN', then the 'STOPPING' indication means that DB2 is transitioning from duplex mode back to simplex mode, reverting back to the primary group buffer pool.

DUPLEXED

The group buffer pool is in steady-state duplexing mode.

SWITCHING

DB2 is in the initial phase of transitioning from duplex mode back to simplex mode, switching to the secondary group buffer pool. The group buffer pool is transitioning from duplex mode back to simplex mode, switching to the secondary group buffer pool.

cfname

The name of the coupling facility in which the group buffer pool is allocated. If the group buffer pool is duplexed, this is the coupling facility name associated with the primary group buffer pool.

cflevel1

The coupling facility level from a DB2 functionality perspective for the coupling facility in which this group buffer pool is allocated. If the group buffer pool is duplexed, *cflevel1* is the coupling facility level associated with the primary group buffer pool.

cflevel2

The coupling facility level for the coupling facility in which this group buffer pool is allocated. If the group buffer pool is duplexed, *cflevel2* is the coupling facility level associated with the primary group buffer pool."

DSNB759I **NUMBER OF DIRECTORY ENTRIES = *dir#***
NUMBER OF DATA PAGES = *data#*
NUMBER OF CONNECTIONS = *conn#*

Explanation: This message is the second of two messages giving the allocation details for the group

buffer pool for a DISPLAY GROUPBUFFERPOOL command. It is issued only if DB2 determines, by successfully querying the MVS CFRM administrative policy, that the group buffer pool is allocated. It is immediately preceded by message DSNB758I. A preceding DSNB750I message identifies the associated group buffer pool.

- dir#* Actual number of directory entries allocated for the coupling facility structure.
- data#* Actual number of data pages allocated for the coupling facility structure.
- conn#* The number of DB2 subsystems that are connected to the coupling facility structure. This includes both active connections and failed-persistent connections. The CONNLIST option of the DISPLAY GROUPBUFFERPOOL command gives details of the connection status.

DSNB760I GBPCACHE OPTION SET TO *value* FOR *gbpname*. IT WILL TAKE EFFECT ON THE NEXT REALLOCATION

Explanation: This message is issued in response to an ALTER GROUPBUFFERPOOL command that requests a change in the GBPCACHE attribute. It is also issued for the first ALTER GROUPBUFFERPOOL command for a group buffer pool, even when the GBPCACHE option is not specified on the command. (In this case, the message shows YES for the GBPCACHE option.) The new setting takes effect the next time the coupling facility cache structure is allocated.

System Programmer Response: Use the MVS command SETXCF START, REBUILD command when you are ready for the change to take effect.

System Action: Processing continues.

DSNB761I THE NEW SETTING WILL TAKE EFFECT AFTER THE GBPCACHE ATTRIBUTE HAS BEEN CHANGED TO YES

Explanation: This message is issued in response to an ALTER GROUPBUFFERPOOL command that requests a change to RATIO, CLASST, GBPOOLT or GBPCHKPT when GBPCACHE NO is also specified on the command or when the current GBPCACHE attribute is NO. The new setting takes effect the next time the coupling facility cache structure is allocated after the GBPCACHE attribute has been changed to YES.

System Programmer Response: Use the ALTER GROUPBUFFERPOOL command to change the GBPCACHE attribute to YES and the MVS command SETXCF START, REBUILD when you are ready for the change to take effect.

System Action: Processing continues.

DSNB762I DUPLEXING STATISTICS FOR *secondary-gbpname* WRITES FAILED DUE TO LACK OF STORAGE = *s2* CHANGED

Explanation: This message is displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the GDETAIL option if the group buffer pool is duplexed. It lists the statistics on writes to the secondary group buffer pool and the total number of changed pages for the secondary group buffer pool. *secondary-gbpname* is the normal group buffer pool name (such as GBP0) suffixed with '-SEC'.

- s2* **Write miss cache full** counter. Number of times a coupling facility write request was not completed because of a lack of storage in the secondary group buffer pool.

For information about the Group Detail Report, see *DB2 Data Sharing: Planning and Administration* .

DSNB763I *gbpname* IS NOT DEFINED WITH GBPCACHE NO

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command with TYPE(NOCACHE) and either one name or a list of names specified in the selection list. The specified group buffer pool is not defined with GBPCACHE NO, and therefore does not meet the qualification to be displayed. This message is issued once for each group buffer pool that does not match the "GBPCACHE NO" criterion.

System Action: The display is terminated for this group buffer pool. Command processing continues, if there are other group buffer pool names to process.

DSNB764I DUPLEXING STATISTICS FOR *secondary-gbpname* WRITES FAILED DUE TO LACK OF STORAGE = *s2* ASYNCHRONOUS COMPLETION CHECKS = *s3*

Explanation: This message is displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option if the group buffer pool is duplexed. It lists the statistics on writes to the secondary group buffer pool. *secondary-gbpname* is the normal group buffer pool name (e.g. GBP0) suffixed with '-SEC'.

- s2* Coupling facility write requests that were not completed because of a lack of storage in the secondary group buffer pool.
- s3* The number of times DB2 checked for the completion of the write of a changed page to the secondary group buffer pool, but the write had not yet completed and thus the transaction had to wait until the write to the secondary group buffer pool completed.

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For information about the Member Detail Report, see *DB2 Data Sharing: Planning and Administration*.

DSNB765I NO CONNLIST REPORT IS GENERATED. THERE ARE NO CONNECTIONS TO THIS GROUP BUFFER POOL.

Explanation: DB2 displays this message in response to a DISPLAY GROUPBUFFERPOOL command with the CONNLIST option when there are currently no connection names to report for the group buffer pool. A preceding DSNB750I message identifies the associated group buffer pool.

DSNB766I THE CONNLIST REPORT FOLLOWS

Explanation: DB2 displays this message in response to a DISPLAY GROUPBUFFERPOOL command with the CONNLIST option to indicate the beginning of the CONNLIST display for this group buffer pool. A preceding DSNB750I message identifies the associated group buffer pool.

**DSNB767I CONNECTION NAME = *conname*,
CONNECTION STATUS = *status*
CONNECTOR'S RELEASE = *DB2 release***

Explanation: This message contains the display information that results from a DISPLAY GROUPBUFFERPOOL command with the CONNLIST option. One DSNB767I message is issued for each defined connection to the group buffer pool. The associated group buffer pool is identified on a preceding DSNB750I message.

conname

Name of the connection. DB2 subsystems use the DB2 member name as the connection name.

status Status of the connection.

A Active.

F Failed-Persistent.

D Dually connected to both the original structure and the new structure during a rebuild.

DB2 release

The release of the connected DB2.

DSNB768I THERE ARE NO GROUP BUFFER POOLS DEFINED WITH GBPCACHE NO

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command with the TYPE(NOCACHE) option and an asterisk (*) specified as the selection list when DB2 determines that there are

no group buffer pools defined with the GBPCACHE(NO) attribute.

System Action: Command processing is terminated.

DSNB769I THE CONNLIST REPORT IS COMPLETE

Explanation: DB2 displays this message in response to a DISPLAY GROUPBUFFERPOOL command with the CONNLIST option to indicate the end of the CONNLIST display for this group buffer pool. A preceding DSNB750I message identifies the associated group buffer pool.

DSNB770I MEMBER DETAIL STATISTICS ARE NOT AVAILABLE FOR THE GROUP BUFFER POOL. THIS DB2 HAS NEVER BEEN CONNECTED TO THE GROUP BUFFER POOL.

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command with MDETAIL specified. MDETAIL statistics are not available for the requested group buffer pool because this DB2 has not connected to the group buffer pool since startup. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

System Action: Processing continues.

DSNB771I INCREMENTAL MEMBER DETAIL STATISTICS SINCE *basetime*

Explanation: This message is displayed in response to the DISPLAY GROUPBUFFERPOOL command with MDETAIL(INTERVAL) specified. It indicates the start time of the interval for which the statistics were accumulated. This is the time of the previous MDETAIL incremental display on this DB2 or the time DB2 first connected to the group buffer pool if there was no previous MDETAIL incremental display. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

System Action: Processing continues.

DSNB772I CUMULATIVE MEMBER DETAIL STATISTICS SINCE *basetime*

Explanation: This message is displayed in response to the DISPLAY GROUPBUFFERPOOL command with MDETAIL(*) specified. It indicates the start time of the interval for which the statistics were accumulated. This is the time this DB2 first connected to the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

System Action: Processing continues.

**DSNB773I MEMBER DETAIL STATISTICS
SYNCHRONOUS READS DUE TO
BUFFER INVALIDATION DATA
RETURNED = r1 DATA NOT RETURNED
= r2**

Explanation: This is the first of eight messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists some synchronous read statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. Messages DSNB774I, DSNB775I, DSNB789I, and DSNB776I through DSNB779I always follow this one.

The counter descriptions are listed below. In the descriptions, the term "synchronous" means that the coupling facility interaction is done under the DB2 user's execution unit.

- r1 Synchronous coupling facility read requests issued because the virtual buffer was marked "invalid". Data is successfully returned from the group buffer pool.
- r2 Synchronous coupling facility read requests issued because the virtual buffer was marked "invalid". Data is *not* returned from the group buffer pool.

**DSNB774I DUE TO DATA PAGE NOT IN BUFFER
POOL DATA RETURNED = r3 DATA
NOT RETURNED = r4**

Explanation: This is the second of eight messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists more local synchronous read statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always preceded by message DSNB773I and followed by messages DSNB775I, DSNB789I, and DSNB776I through DSNB779I.

The counter descriptions are listed below. In the descriptions, the term "synchronous" means that the coupling facility interaction is done under the DB2 user's execution unit.

- r3 Synchronous coupling facility read requests issued because the required data was not in the buffer pool buffer. Data is successfully returned from the group buffer pool.
- r4 Synchronous coupling facility read requests issued because the required data was not in the buffer pool buffer. Data is *not* returned from the group buffer pool.

**DSNB775I PREFETCH READS DATA NOT
RETURNED = r5**

Explanation: This is the third of eight messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists some prefetch read statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

- r5 This is the number of pages that were not retrieved from the GBP following RPL request. These pages were retrieved from DASD. Note that there are not any CF interactions associated with this number; this number is incremented when the RPL feedback indicates that the page is not cached in the GBP so that DB2 can avoid a CF read request for the page and go directly to DASD.

**DSNB776I SYNCHRONOUS WRITES CHANGED
PAGES = w1 CLEAN PAGES = w2**

Explanation: This is the fifth of eight messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists some local write statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always preceded by messages DSNB773I through DSNB775I and DSNB789I and followed by messages DSNB777I through DSNB779I.

The counter descriptions are listed below. In the descriptions, the term "synchronous" means that the coupling facility interaction is done under the DB2 user's execution unit.

- w1 Number of changed pages that were written synchronously, under a user's execution unit, to the coupling facility.
- w2 Number of clean pages that were written synchronously, under a user's execution unit, to the coupling facility.

**DSNB777I ASYNCHRONOUS WRITES CHANGED
PAGES = w3 CLEAN PAGES = w4
FAILED WRITES DUE TO LACK OF
STORAGE = w5**

Explanation: This is the sixth of eight messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists local write and cross-invalidation statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always preceded by messages DSNB773I through DSNB775I, DSNB789I, and DSNB776I and followed by messages DSNB778I and DSNB779I.

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The counter descriptions are listed below. In the descriptions, the term "asynchronous" means that the coupling facility interaction is done under a DB2 system execution unit, such as with a prefetch.

- w3 Number of changed pages that were written asynchronously, under a system execution unit, to the coupling facility
- w4 Number of clean pages that were written asynchronously, under a system execution unit, to the coupling facility.
- w5 Coupling facility write requests that were not completed because of a lack of storage in the group buffer pool.

DSNB778I CASTOUT THRESHOLDS DETECTED FOR CLASSES = *t1* FOR GROUP BUFFER POOL = *t2* GBP CHECKPOINTS TRIGGERED = *k1* PARTICIPATION IN REBUILD = *k2*

Explanation: This is the seventh of ten messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists local castout threshold statistics for the group buffer pool and also group buffer pool checkpoint and rebuild statistics. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always preceded by messages DSNB773I through DSNB775I, DSNB789I, DSNB776I, and DSNB777I and followed by messages DSNB796I, DSNB779I, and DSNB797I.

Counters:

- t1* Number of times the class castout threshold was detected
- t2* Number of times the group buffer pool castout threshold was detected
- k1* Number of group buffer pool checkpoints that were triggered.
- k2* Number of times that this member participated in a rebuild of the group buffer pool structure.

DSNB780I GROUP DETAIL STATISTICS ARE NOT AVAILABLE FOR THE GROUP BUFFER POOL. THIS DB2 IS NOT CURRENTLY CONNECTED TO THE GROUP BUFFER POOL.

Explanation: DB2 could not retrieve group buffer pool group (GDETAIL) statistics in response to a DISPLAY GROUPBUFFERPOOL command because this DB2 subsystem is not currently connected to the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

System Action: Processing continues.

DSNB781I GROUP DETAIL STATISTICS ARE NOT AVAILABLE FOR THE GROUP BUFFER POOL. MVS IXLCACHE RETURN CODE = *retcode* MVS IXLCACHE REASON CODE = *reason*

Explanation: DB2 could not retrieve group buffer pool group (GDETAIL) statistics in response to a DISPLAY GROUPBUFFERPOOL command because the statistics request (IXLCACHE macro) did not successfully complete. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

retcode Return code from MVS on the statistics request

reason Reason code from MVS on the statistics request

For an explanation of IXLCACHE return and reason codes, see *MVS/ESA Programming: Sysplex Services Reference*.

System Action: Processing continues.

DSNB782I INCREMENTAL GROUP DETAIL STATISTICS SINCE *basetime*

Explanation: This message is displayed by the DISPLAY GROUPBUFFERPOOL command with GDETAIL(INTERVAL) specified. It indicates the start time of the interval for which the statistics were accumulated. This is the time of the previous GDETAIL incremental display from this DB2 or the time the group buffer pool was allocated or reallocated, if there was no previous GDETAIL incremental display.

System Action: Processing continues.

DSNB783I CUMULATIVE GROUP DETAIL STATISTICS SINCE *basetime*

Explanation: This message is displayed in response to the DISPLAY GROUPBUFFERPOOL command with GDETAIL(*) specified. It indicates the start time of the interval for which the statistics were accumulated. This is the time the group buffer pool was first allocated or reallocated.

System Action: Processing continues.

DSNB784I GROUP DETAIL STATISTICS READS DATA RETURNED = *r1*

Explanation: This is the first of five messages containing group statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the GDETAIL option. It lists the successful reads for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always followed by messages DSNB785I through DSNB788I.

r1 "Read hit" counter. Number of times that a page was returned on a coupling facility read request.

For information about the Group Detail Report, see *DB2 Data Sharing: Planning and Administration* .

DSNB785I DATA NOT RETURNED DIRECTORY ENTRY EXISTED = *r2* DIRECTORY ENTRY CREATED = *r3* DIRECTORY ENTRY NOT CREATED = *r4*, *r5*

Explanation: This is the second of five messages containing group statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the GDETAIL option. It continues the read statistics for the group buffer pool. The associated group buffer pool is identified in a preceding DSNB750I or DSNB751I message. This message is always preceded by message DSNB784I and followed by messages DSNB786I through DSNB788I.

All the "read counters" in this message represent cases where data was not returned on the coupling facility read request.

- r2* "Read miss directory hit" counter. Number of times that a coupling facility read request specified a page for which a directory entry exists, but no data was cached for that page.
- r3* "Read miss name assigned" counter. Number of times that a coupling facility read request specified a page for which a directory entry was created.
- r4* "Read miss assignment suppressed" counter. Number of times that a coupling facility read request specified a page for which no directory entry exists and no directory entry is created.
- r5* "Read miss cache full" counter. Number of times that a coupling facility read request specified a page for which no directory entry exists and no directory entry is created because of a lack of storage in the group buffer pool.

For information about the Group Detail Report, see *DB2 Data Sharing: Planning and Administration* .

DSNB786I WRITES CHANGED PAGES= *w1* CLEAN PAGES = *w2* FAILED DUE TO LACK OF STORAGE = *w3* CHANGED PAGES SNAPSHOT VALUE = *p1*

Explanation: This is the third of five messages containing group statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the GDETAIL option. It is followed by messages DSNB787I and DSNB788I. It lists the statistics on writes to the group buffer pool and the total number of changed pages for the group buffer pool. The associated group

buffer pool is identified in a preceding DSNB750I or DSNB751I message. This message is always preceded by messages DSNB784I and DSNB785I.

- w1* "Changed page write hit" counter. Number of changed pages that were successfully written.
- w2* "Clean page write hit" counter. Number of clean pages that were successfully written.
- w3* "Write miss cache full" counter. Number of times a coupling facility write request was not completed because of a lack of storage in the group buffer pool.
- p1* "Total changed" counter. Snapshot value of the current number of changed pages. The displayed value of this counter is not affected by whether this is an incremental or cumulative display.

For information about the Group Detail Report, see *DB2 Data Sharing: Planning and Administration* .

DSNB787I RECLAIMS FOR DIRECTORY ENTRIES = *d1* FOR DATA ENTRIES = *d2* CASTOUTS= *c1*

Explanation: This is the fourth of five messages containing group statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the GDETAIL option. It is always preceded by messages DSNB784I through DSNB786I and followed by message DSNB788I. It lists the statistics on reclaims and castouts for the group buffer pool. The associated group buffer pool is identified in a preceding DSNB750I or DSNB751I message.

- d1* "Castout" counter. Number of pages that were castout.
- d2* "Data entry reclaim" counter. Number of times a name assignment required that a data page be reclaimed by the coupling facility.
- c1* "Castout" counter. Number of castout operations performed.

For information about the Group Detail Report, see *DB2 Data Sharing: Planning and Administration* .

DSNB788I CROSS INVALIDATIONS DUE TO DIRECTORY RECLAIMS = *x1* DUE TO WRITES = *x2* EXPLICIT = *x3*

Explanation: This is the last of five messages containing group statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the GDETAIL option. It lists the cross-invalidation (XI) statistics for the group buffer pool. The associated group buffer pool is identified in a preceding DSNB750I or DSNB751I message. This message is always preceded by messages DSNB784I through DSNB787I.

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- x1* "XI for directory reclaim" counter. Number of times a directory entry was reclaimed (stolen) and XI signals had to be sent (that is, the stolen directory entry had registered DB2 interest).
- x2* "XI for write" counter. Number of times a coupling facility write request caused XI to one or more registered DB2s.
- x3* "XI for explicit invalidation" counter. Number of times an explicit coupling facility XI request caused XI to one or more registered DB2s.

For more information about these counters, see *DB2 Data Sharing: Planning and Administration*.

DSNB789I REGISTER PAGE LIST = *r7* PAGES RETRIEVED = *r8*

Explanation: This is the fourth of eight messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists more local read statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool.

The counter descriptions are listed below.

- r7* The number of requests to the coupling facility to register interest in a list of pages. DB2 does this when prefetch (sequential or list) is used when the following conditions are met:
- The DB2 member is running on a particular service level of MVS 5.2 or above
 - The GBP is allocated in a coupling facility with CFLEVEL=2 or above.
- r8* Coupling facility read requests that were done for prefetch to retrieve a page in the group buffer pool as a result of feedback from the request to register a list of pages.

DSNB790I DISPLAY FOR GROUP BUFFER POOL *gbpname* IS COMPLETE

Explanation: For a DISPLAY GROUPBUFFERPOOL command, this message signals the end of the display for group buffer pool *gbpname*.

DSNB791I THIS DB2 IS NOT CONNECTED TO *gbpname*

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command with TYPE(MCONN) and either one name or a list of names specified in the selection list. The DB2 on which the DISPLAY GROUPBUFFERPOOL command was issued is not currently connected to the specified group buffer pool. This message is issued once for each group buffer pool that does not match the "member connectivity" criterion.

System Action: The display is terminated for this group buffer pool. Command processing continues, if there are other group buffer pool names to process.

DSNB792I NO DB2 IN THE GROUP IS CONNECTED TO *gbpname*

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command with TYPE(GCONN) and either one name or a list of names specified in the selection list. No DB2 in the group is currently connected to the specified group buffer pool. This message is issued once for each group buffer pool that does not match the "group connectivity" criterion.

System Action: The display is terminated for this group buffer pool. Command processing continues, if there are other group buffer pool names to process.

DSNB793I DELETE NAME LIST = *s5* READ CASTOUT STATISTICS = *s6* DELETE NAME = *s7* OTHER ASYNCHRONOUS GBP REQUESTS = *s8*

Explanation: This message is displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option if the group buffer pool is duplexed. It lists the statistics on requests to the secondary group buffer pool that are related to castout processing and to garbage collection processing.

- s5* The number of Delete Name List requests to delete a set of pages from the secondary group buffer pool that have just been cast out from the primary. If the group buffer pool has been duplexed for the entire reporting interval, then this number should be roughly equal to the number of Unlock Castout requests to the primary (indicated in message DSNB796I).
- s6* The number of Read Castout Statistics requests to check for "orphaned data entries" in the secondary group buffer pool. The DB2 member that is the group buffer pool structure owner periodically issues these requests to determine whether garbage collection is necessary to clean up orphaned data entries from the secondary. Orphaned data entries are "changed" data entries in the secondary group buffer pool without a corresponding "changed" data entry in the primary. Orphaned data entries are to be expected from time to time and do not represent any kind of data inconsistency problem (because the page has already been cast out from the primary and such that the version of the page in the secondary is the same as the version of the page on DASD). Orphaned data entries can be introduced by certain transaction or system failures, or by new group buffer pool write

activity that encounters very unlikely timing windows when castout is concurrently processing.

- s7 The number of Delete Name requests to delete "orphaned data entries" from the secondary group buffer pool. The DB2 member that is the group buffer pool structure owner issues these requests if it determines that garbage collection is necessary. See the description above under s6 for a description of "orphaned data entries".
- s8 The number of asynchronous CF requests sent to the secondary group buffer pool. This excludes ASYNCHRONOUS COMPLETION CHECKS as reported on the DSNB764I message.

For information about the Member Detail Report, see *DB2 Data Sharing: Planning and Administration*.

DSNB794I THIS DB2 IS NOT CONNECTED TO ANY GROUP BUFFER POOL

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command with the TYPE(MCONN) option and an asterisk (*) specified as the selection list. This message is issued when DB2 determines that there are no group buffer pools having "member connectivity" from the DB2 on which the DISPLAY GROUPBUFFERPOOL command was issued.

System Action: Command processing is terminated.

DSNB795I NO DB2 IN THE GROUP IS CONNECTED TO ANY GROUP BUFFER POOL

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command with the TYPE(GCONN) option and an asterisk (*) specified as the selection list. When DB2 successfully determines (that is, no error is encountered during command processing) that there are no group buffer pools connected to any DB2 in the data sharing group.

System Action: Command processing is terminated.

**DSNB796I CASTOUTS PAGES CASTOUT = c1
UNLOCK CASTOUT = c2 READ
CASTOUT CLASS = c3 READ
CASTOUT STATISTICS = c4 READ
DIRECTORY INFO = c5**

Explanation: This is the eighth of ten messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists local castout statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always preceded by messages DSNB773I through DSNB775I, DSNB789I, DSNB776I

through DSNB778I, and followed by messages DSNB779I and DSNB797I.

Counters:

- c1 Number of pages cast out.
- c2 Number of requests to unlock for castout.
- c3 Number of read castout class requests.
- c4 Number of read castout statistics requests.
- c5 Number of read directory info requests. These requests are made during group buffer pool checkpoint.

**DSNB797I OTHER INTERACTIONS REGISTER
PAGE = o1 UNREGISTER PAGE = o2
DELETE NAME = o3 READ STORAGE
STATISTICS = o4 EXPLICIT CROSS
INVALIDATIONS = o5 ASYNCHRONOUS
GBP REQUESTS = o6**

Explanation: This is the last of ten messages containing local statistics, displayed as a result of the DISPLAY GROUPBUFFERPOOL command with the MDETAIL option. It lists local castout statistics for the group buffer pool. A preceding DSNB750I or DSNB751I message identifies the associated group buffer pool. This message is always preceded by messages DSNB773I through DSNB775I, DSNB789I, DSNB776I through DSNB779I, and DSNB796I.

Counters:

- o1 Number of requests to the coupling facility to register interest in a single page.
- o2 Number of requests to the coupling facility to remove the registered interest in a single page.
- o3 Number of requests to the coupling facility to delete the directory entries associated with a set of pages.
- o4 Number of requests to the coupling facility to read the statistics counters associated with the structure. DB2 generally issues this request once per group buffer pool checkpoint, and once per GDETAIL request on the DB2 DISPLAY GROUPBUFFERPOOL command.
- o5 Number of explicit cross-invalidations for pages in the group buffer pool.
- o6 Number of coupling facility requests to the primary group buffer pool that were converted from synchronous to asynchronous.

**DSNB798I LAST GROUP BUFFER POOL
CHECKPOINT *timestamp* GSP
CHECKPOINT RECOVERY LRSN = *lrsn*
STRUCTURE OWNER = *member-name***

Explanation: This message is displayed in response to the DISPLAY GROUPBUFFERPOOL command. It is

issued only if DB2 determines, by successfully querying the MVS CFRM policy, that the group buffer pool is allocated. It is immediately preceded by message DSNB759I. A preceding DSNB750I message identifies the associated group buffer pool.

timestamp

The date and time of the last group buffer pool checkpoint.

lrsn

The recovery log record sequence number (LRSN) that was recorded by the last group buffer pool checkpoint that reflects the oldest changed page clean-to-dirty LRSN value at the time of the checkpoint. If the group buffer pool were to fail, *lrsn1* is used by DB2 as input to determine the starting points for the merged log scan to recover the page sets and partitions that are entered into group buffer pool recovery pending (GRECP) status. You can do more detailed monitoring of the group buffer pool checkpoint processing with IFCID 0261.

member-name

The member name of the group buffer pool structure owner. The structure owner's responsibilities include the following:

- Issue the group buffer pool checkpoint.
- Detect the GBPOOLT castout threshold and initiate castout if this threshold has been reached (by notifying the pageset or partition castout owners).
- Coordinate the damage assessment process in case the group buffer pool fails.
- Coordinate the rebuild process for the group buffer pool.

'UNKNOWN' is displayed if DB2 is not able to determine which member is the structure owner for the group buffer pool. This should only happen in an unexpected error situation. See the message accompanying that error.

System Action: Processing continues.

DSNB799I SECONDARY GBP ATTRIBUTES
ALLOCATED SIZE = *ssize* KB
VOLATILITY STATUS = *svolstat*
CFLEVEL - OPERATIONAL =
cflevel1/mv > **CFLEVEL - ACTUAL =**
cflevel2 **NUMBER OF DIRECTORY**
ENTRIES = *sdir#* NUMBER OF DATA
PAGES = *sdata#*

Explanation: For a DISPLAY GROUPBUFFERPOOL command, this message gives the attributes of the secondary group buffer pool if the group buffer pool is duplexed. It is displayed only if the group buffer pool is duplexed and if DB2 was successful in querying the MVS CFRM administrative policy. This message is not displayed if the group buffer pool is in a transition state between simplexing and duplexing.

ssize The actual allocated size (in kilobytes) of the secondary group buffer pool coupling facility structure.

svolstat

The volatility status of the secondary group buffer pool:

VOLATILE

The structure is volatile.

NON-VOLATILE

The structure is non-volatile.

sdir#

Actual number of directory entries allocated for the secondary group buffer pool.

sdata#

Actual number of data pages allocated for the secondary group buffer pool.

cflevel1

The coupling facility level from a DB2 functionality perspective for the coupling facility in which the secondary group buffer pool is allocated.

cflevel2

The coupling facility level for the coupling facility in which the secondary group buffer pool is allocated.

DSNB800I DIRECTORY ENTRY TO DATA PAGE RATIO SET TO *value* FOR *gbpname*. IT WILL TAKE EFFECT ON THE NEXT REALLOCATION

Explanation: This message is issued in response to an ALTER GROUPBUFFERPOOL command that requests a change to the directory entry to the data page ratio for a group buffer pool. It is also issued for the first ALTER GROUPBUFFERPOOL command for a group buffer pool, even when no ratio value is specified on the command (in this case, the default ratio value is being used). The new ratio takes effect the next time the coupling facility cache structure is allocated.

The directory entry to data page ratio determines the number of directory entries and the number of data pages that are allocated in the coupling facility cache structure for the group buffer pool. If the coupling facility structure is not allocated, the first connect from any DB2 causes allocation of the structure and the new directory entry to data page ratio to take effect.

If the structure size can be determined from the MVS CFRM administrative policy, message DSNB801I is issued to indicate an estimate of the number of directory and data entries that are allocated based on the new ratio and the current size of the coupling facility structure. Otherwise, message DSNB812I is issued.

System Action: Processing continues.

System Programmer Response: Use the -DISPLAY GROUPBUFFERPOOL command to display the number of allocated directory and data entries.

**DSNB801I MAX STRUCTURE SIZE INDICATED IN
MVS CFRM POLICY = *size* KB
ESTIMATED NUMBER OF DIRECTORY
ENTRIES = *dir#* ESTIMATED NUMBER
OF DATA PAGES = *data#***

Explanation: This message is issued in response to an ALTER GROUPBUFFERPOOL command after the directory entry to data page ratio is successfully updated. It is also issued for the first ALTER GROUPBUFFERPOOL command for a group buffer pool, even when no ratio value is specified on the command (in this case, the default ratio value is used). The group buffer pool is identified in message DSNB800I, which immediately precedes this message.

Because the actual ratio change does not take affect until the group buffer pool is reallocated, this message shows the estimated number of directory entries and data pages that are allocated based on the new ratio and the maximum size of the coupling facility structure, as indicated in the active CFRM policy definition. The actual number of entries that are allocated varies based on the amount of coupling facility storage that is available at the time the allocation is attempted, and on the amount of storage overhead necessary for the coupling facility control structures. Because DB2 cannot determine these variables, the estimated number of directory and data entries displayed in this message assumes that the entire storage allocation for the coupling facility cache structure will be used for directory and data entries, which is not the case.

To determine the actual number of directory and data entries that are allocated for this group buffer pool, you must cause the buffer pool to be reallocated or rebuilt, as described in *DB2 Data Sharing: Planning and Administration*, then issue a DISPLAY GROUPBUFFERPOOL command.

System Action: Processing continues.

**DSNB802I "*value*" IS NOT A VALID PARAMETER
FOR 'RATIO'**

Explanation: An illegal value for the RATIO parameter was specified for an ALTER GROUPBUFFERPOOL command. The RATIO value can be up to 6 characters, and must be a decimal number from 1.0 to 255 (inclusive). For values less than 25, any digits after the first decimal place are ignored. If the value for the RATIO parameter is greater than or equal to 25, any digits after the decimal point are ignored. Informational message DSNB803I is displayed if the system ignores any precision that exceeds the limits of the RATIO parameter.

System Action: The request is rejected.

System Programmer Response: Reissue the ALTER GROUPBUFFERPOOL command, and specify an acceptable value for RATIO.

DSNB803I RATIO IS TRUNCATED TO *value*

Explanation: The precision specified on the RATIO parameter on an ALTER GROUPBUFFERPOOL command was greater than allowed. For decimal numbers less than 25, any digits after the first decimal place are ignored: for example, 5.67 is treated as 5.6. For decimal numbers greater than or equal to 25, any digits after the decimal point are ignored: for example, 25.3 is treated as 25.

System Action: Processing continues.

**DSNB804I CLASS CASTOUT THRESHOLD SET
TO *value%* FOR *gbpname***

Explanation: This message is issued in response to an ALTER GROUPBUFFERPOOL command that requests a change to the class castout threshold value for a group buffer pool. It is also issued for the first ALTER GROUPBUFFERPOOL command for a group buffer pool, even when no threshold value is specified on the command (in this case, the default class castout threshold value is being used).

System Action: Processing continues.

**DSNB805I *value* IS NOT A VALID PARAMETER
FOR 'CLASST'**

Explanation: An illegal value was specified on the CLASST (class castout threshold) keyword on an ALTER GROUPBUFFERPOOL command. The CLASST value must be an integer between 0 and 90, inclusive.

System Action: The request is rejected.

System Programmer Response: Reissue the -ALTER GROUPBUFFERPOOL command, specifying an acceptable value for CLASST.

**DSNB806I GROUP BUFFER POOL CASTOUT
THRESHOLD SET TO *value%* FOR
*gbpname***

Explanation: This message is issued in response to an ALTER GROUPBUFFERPOOL command that successfully changes the group buffer pool castout threshold value for a group buffer pool. It is also issued for the first successful ALTER GROUPBUFFERPOOL command for a group buffer pool, even when no threshold value is specified on the command (in this case, the default group buffer pool castout threshold value is being used).

System Action: Processing continues.

**DSNB807I *value* IS NOT A VALID PARAMETER
FOR 'GBPOOLT'**

Explanation: An ALTER GROUPBUFFERPOOL command was issued with an illegal value specified on the GBPOOLT (group buffer pool castout threshold)

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keyword. The GBPOOLT value must be an integer between 0 and 90, inclusive.

System Action: The request is rejected.

System Programmer Response: Reissue the -ALTER GROUPBUFFERPOOL command, specifying an acceptable value for GBPOOLT.

DSNB808I GROUP BUFFER POOL CHECKPOINT INTERVAL SET TO *value* MINUTES FOR *gbpname*

Explanation: This message is issued in response to an ALTER GROUPBUFFERPOOL command that successfully changes the group buffer pool checkpoint interval value for a group buffer pool. It is also issued for the first successful ALTER GROUPBUFFERPOOL command for a group buffer pool, even when no interval value is specified on the command (in this case, the default group buffer pool checkpoint interval value is being used).

System Action: Processing continues.

DSNB809I *value* IS NOT A VALID PARAMETER FOR 'GBPCHKPT'

Explanation: An ALTER GROUPBUFFERPOOL command was issued with an illegal value specified on the GBPCHKPT (group buffer pool checkpoint) keyword. The GBPCHKPT value must be an integer between 1 and 999999, inclusive.

System Action: The request is rejected.

System Programmer Response: Reissue the -ALTER GROUPBUFFERPOOL command, specifying an acceptable value for GBPCHKPT.

DSNB812I SIZE ESTIMATES ARE NOT AVAILABLE FOR THE GROUP BUFFER POOL MVS IXCQUERY RETURN CODE = *return code* MVS IXCQUERY REASON CODE = *reason code*

Explanation: The directory entries and data pages estimates for the group buffer pool, identified on the preceding DSNB800I message, could not be computed because IXCQUERY was unable to obtain the backing structure's size information from the MVS CFRM administrative policy definition. This can happen if an IXCQUERY processing error occurred, or if the structure was not defined in the CFRM policy. The backing structure for the group buffer pool must be defined in the CFRM policy before the group buffer pool can be allocated. The exact reason can be determined from the *return code* and the *reason code*. For an explanation of the IXCQUERY codes, see *MVS/ESA Programming: Sysplex Services Reference*.

System Action: The command completes successfully, but without giving the estimates.

DSNB813I *csect-name* ALTER NOTIFICATION FAILED

Explanation: An ALTER GROUPBUFFERPOOL command failed to propagate the request for castout threshold or checkpoint interval change to other DB2s in the data sharing group. This error is triggered by an error encountered by the IRLM notification process. As a result, different DB2s in the group might have different values for the castout threshold or checkpoint interval. The RATIO change does not use the notification process and is, therefore, not affected by such a failure.

System Action: Processing continues.

System Programmer Response: Reissue the -ALTER GROUPBUFFERPOOL command with the same parameters. If the problem persists, it indicates a deeper problem, such as inadequate space for the locking structures.

DSNB814I *csect-name* NO CHANGES REQUESTED ON COMMAND

Explanation: An ALTER GROUPBUFFERPOOL command without any parameters was issued for an existing group buffer pool. If an ALTER GROUPBUFFERPOOL command without any parameters is issued for a group buffer pool that does not yet exist, a group buffer pool definition with default parameters values is created.

System Action: The command is successful and processing continues.

DSNB815I PAGE P-LOCK LOCK/UNLOCK, P-LOCK REQUESTS FOR SPACE MAP PAGES = *nn* P-LOCK REQUESTS FOR DATA PAGES = *nn* P-LOCK REQUESTS FOR INDEX LEAF PAGES = *nn* P-LOCK UNLOCK REQUESTS = *nn*

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command. This message reports the physical lock (P-lock) status at the Group Buffer Pool level. The accounting of these P-locks is intended for use in monitoring and tuning database performance, especially in a data-sharing environment. For more information about the DISPLAY GROUPBUFFERPOOL command, please see the DB2 Command Reference.

System Action: Processing Continues.

DSNB816I PAGE P-LOCK
SUSPENSIONS/NEGOTIATIONS,
P-LOCK SUSPENSIONS FOR SPACE
MAP PAGES = *nn* P-LOCK
SUSPENSIONS FOR DATA PAGES = *nn*
P-LOCK SUSPENSIONS FOR INDEX
LEAF PAGES = *nn* P-LOCK
NEGOTIATIONS FOR SPACE MAP
PAGES = *nn* P-LOCK NEGOTIATIONS
FOR DATA PAGES = *nn* P-LOCK
NEGOTIATIONS FOR INDEX LEAF
PAGES = *nn*

Explanation: This message is issued in response to a DISPLAY GROUPBUFFERPOOL command. This message reports the physical lock (P-lock) status at the Group Buffer Pool level. These P-lock statistics are intended for use in monitoring and tuning database performance, especially in a data-sharing environment. For more information about the DISPLAY GROUPBUFFERPOOL command, please see the DB2 Command Reference.

System Action: Processing Continues.

DSNB890I *command-verb* *gbp-kwd* **COMMAND IS ONLY VALID FOR DATA SHARING**

Explanation: An attempt was made to issue a GROUPBUFFERPOOL command on a DB2 that was not initialized to participate in data sharing.

command-verb

The name of the command attempted: ALTER, or DISPLAY

gbp-kwd

The keyword GROUPBUFFERPOOL or GBPOOL

System Action: The command request is rejected.

DSNB891I *name* **IS NOT A VALID GROUP BUFFER POOL OR COUPLING FACILITY STRUCTURE NAME**

Explanation: An invalid name was specified on an ALTER GROUPBUFFERPOOL or DISPLAY GROUPBUFFERPOOL command.

name Either the DB2 group buffer pool name or the backing coupling structure name

You must either specify the DB2 group buffer pool name (*gbpname*) or the backing coupling facility structure name (*strname*). Acceptable values for *gbpname* are GBP0, GBP1, ... , GBP49, GBP32K, GBP32K1, ... , GBP32K9. The *strname* has the following format:

groupname_gbpname

The *groupname* is the DB2 data sharing group name. The underscore (`_`) is used as a delimiter between the *groupname* and the *gbpname*.

System Action: The request is rejected.

System Programmer Response: Reissue the command specifying a valid group buffer pool name.

DSNB892I *grpname* **IS NOT A VALID GROUP NAME FOR THIS DB2**

Explanation: The group name specified as part of the full coupling facility cache structure name on an ALTER GROUPBUFFERPOOL or DISPLAY GROUPBUFFERPOOL command is incorrect. On the commands, you can specify either the correct 16-byte coupling facility cache structure name or the DB2 group buffer pool name. The coupling facility cache structure name is a 16-character name specified as follows:

groupname_gbpname

The *gbpname* can be GBP0, GBP1, ..., GBP49 GBP32K, GBP32K1, ..., GBP32K9. The *groupname* is the DB2 data sharing group name. The underscore (`_`) is used as a delimiter between the *groupname* and the *gbpname*. The coupling facility cache structure names are left-justified with a blank as the rightmost padding character. DB2 adds the padding blanks if they are not specified on the command.

System Action: The request is rejected.

System Programmer Response: Reissue the command, specifying a valid group buffer pool name.

Chapter 6. DSNE... messages

In the TSO attachment facility, the user can control whether message IDs are displayed. To see them, type PROFILE MSGID. To suppress them, type PROFILE NOMSGID.

Trace messages associated with the TSO attachment facility (including DSN and DB2) are not listed in this documentation. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

All DSN command processor trace messages have the same message number: DSNET20I.

DSNET20I

Explanation: This is one of many possible trace messages bearing this message number. Complete documentation of all of the TSO attachment facility trace messages bearing this message number is found in Part 8 of *DB2 Diagnosis Guide and Reference*.

DSNE004E PROBABLE SUBSYSTEM ERROR DETECTED IN CSECT csect-name, SUBSYSTEM FUNCTION service, RETCODE retcode, REASON CODE reason-code

Explanation: A subsystem error has occurred. The function identified in the message as 'service' is either an MVS or a DB2 service routine. The error was discovered in the 'csect-name' indicated in the message. Refer to the appropriate MVS publications for a description of the return and reason codes.

System Action: This message is sometimes followed by an intentional system abend. In other instances, the DSN command processor will terminate the current subcommand and attempt to continue by issuing another DSN prompt.

User Response: Run the job again with a SYSUDUMP dump data set allocated and DSN tracing set to 123. Collect the DSN trace stream. If an abend occurs, collect the dump.

DSNE005A EXECUTION IS INTERRUPTED. ENTER C TO CANCEL, OR ANY OTHER REPLY TO RESUME THE subcmd SUBCOMMAND

Explanation: The Attention key was pressed. Entering a 'C' will cancel the DSN subcommand that is currently executing. If the user enters a question mark, message DSNE006A will appear. Any other reply will cause execution of the subcommand that was in progress to continue.

If the DSN prompt was issued just before the Attention

key was pressed, 'subcmd' may be either 'DSN' or the previously invoked subcommand.

User Response: Enter a 'C' to cancel the DB2 subcommand currently executing. The DSN prompt will appear on the terminal. Enter anything else (except another attention) to resume execution.

DSNE006A C WILL TERMINATE THE SUBCOMMAND WITH UNCOMMITTED CHANGES BACKED OUT

Explanation: Enter a 'C' to terminate the subcommand. No uncommitted changes are made to the database. Any other reply causes subcommand execution to continue.

User Response: Enter a 'C' to terminate the subcommand. Control returns to DSN, and the DSN prompt appears on the terminal. This is a second-level help message associated with message DSNE005A.

DSNE008I REPLY WAS xxxxx, EXECUTION RESUMED

Explanation: Execution was suspended by a user ATTENTION and then was resumed, because the string specified in the message as 'xxxxx' was entered.

System Action: Control returns to the interrupted session.

DSNE009I REPLY WAS C, EXECUTION TERMINATED

Explanation: The response to message DSNE005A was a C. This caused the current subcommand to terminate.

System Action: The current subcommand is terminated. The DSN prompt appears on the terminal.

User Response: You can now enter another DSN subcommand.

**DSNE010I SUBCOMMAND subcmd CANCELED
BY ATTENTION**

Explanation: The subcommand specified in the messages was canceled because the user pressed the attention key and then entered a 'C'.

System Action: The current subcommand is terminated. The DSN prompt appears on the terminal.

User Response: A new subcommand can be entered.

**DSNE011I DSN COMMAND CANCELED BY
ATTENTION**

Explanation: The user of the DSN command processor has pressed attention. Since this occurred before DSN was fully initialized, DSN terminates. If DSN had been fully initialized, it would have prompted the user to continue or cancel.

System Action: The DSN command processor terminates. Control returns to TSO or the calling CLIST.

User Response: Restart DSN.

**DSNE100I ssid NOT OPERATIONAL, RETRY
COUNT IS ZERO**

Explanation: The subsystem (specified in the message as 'ssid') was not active, and no retries remain to be executed. No more connection attempts are made. The operator should be notified to start this specific subsystem, and the DSN command should be resubmitted. Issue the DSN command with the RETRY parameter set greater than zero.

System Action: Control returns to TSO.

User Response: Notify the operator to start the subsystem.

Operator Response: Start the subsystem with the 'ssid' specified in the message.

**DSNE101I ssid NOT OPERATIONAL, WILL RETRY
nnn MORE TIMES**

Explanation: The requested DB2 subsystem 'ssid' was not started or is not available. Connection to it will be attempted 'nnn' more times. This message is issued every 30 seconds (and each time 'nnn' is decreased by 1) until the connection is made or 'nnn' is zero.

System Action: DSN repeats the connection attempt until the connection is made or until the retry count is decreased to zero.

User Response: Notify the operator start DB2.

**DSNE102I YOU ARE NOT AUTHORIZED TO USE
DB2 SUBSYSTEM ssid**

Explanation: The authorization ID is not authorized to use subsystem 'ssid'.

System Action: Control returns to TSO.

User Response: Contact the system programmer, or system administrator to arrange for the required RACF or equivalent security system authorization.

**DSNE103E MAIN STORAGE REQUEST FROM
csect-id FAILED**

Explanation: A request for main storage failed.

System Action: The TSO attachment facility is ready for more input.

User Response: Increase the address space size. This can be done as part of the logging on process.

**DSNE104E RETRY COUNT OF number NOT VALID,
SET TO 120**

Explanation: An invalid 'RETRY' parameter was entered on the DSN command. It has been set to 120. Valid retry counts are integer numbers from 0 to 120.

System Action: Retry count is modified, and DSN execution continues.

User Response: The next time you invoke DSN, use a RETRY count of 0 to 120.

**DSNE105E SUBSYSTEM ssid NO LONGER
OPERATIONAL**

Explanation: The DB2 subsystem is down. It must be restarted before the user can continue.

System Action: Control returns to TSO attachment facility.

User Response: Before you can continue, DB2 must be restarted. You must also reissue the DSN command. ISPF users should restart their jobs.

**DSNE106E PLAN plan-id NOT AUTHORIZED FOR
SUBSYSTEM ssid AND AUTH-ID
auth-id**

Explanation: The requested combination of plan-id, subsystem-id, and user-id is not currently authorized.

System Action: The TSO attachment facility is ready for more input.

User Response: Notify the system programmer or system administrator to obtain proper authorization.

System Programmer Response: The system administrator for the DB2 subsystem can arrange the necessary authorization.

DSNE107E SUBSYSTEM RESOURCE NEEDED FOR PLAN plan-name, AUTH ID auth-id, AND SUBSYSTEM subsys IS NOT AVAILABLE

Explanation: The DB2 subsystem was unable to allocate a necessary resource for the requested combination of plan-id, user-id, and subsystem-id. This message is accompanied by DSNE108E. An attempt to establish connection with the DB2 subsystem has failed.

System Action: The TSO attachment facility is ready for more input.

User Response: Arrange to obtain the needed resource, and resubmit the subcommand. See the explanation for message DSNE108E, which accompanies this message.

DSNE108E FEEDBACK - REASON CODE reason-code TYPE= type RESOURCE NAME - 44 characters

Explanation: This message accompanies message DSNE107E or DSNE114E to explain the problem more clearly. RESOURCE NAME is the name of the unavailable resource. The reason code is in hexadecimal format.

System Action: The TSO attachment facility is ready for more input.

User Response: Arrange for the missing resource to be available, and resubmit your job.

Problem Determination: The reason the resource is unavailable is identified by a reason code. The reason codes that appear in this message are described in Part 4, "Section 4. DB2 Codes," on page 773.

TYPE and RESOURCE NAME identify the resource that is currently unavailable. The TYPE code identifies the type, as well as the format and content, of the RESOURCE NAME. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

DSNE109E NO INPUT TO BIND, SUBCOMMAND TERMINATED

Explanation: No LIBRARY parameter was specified on the BIND subcommand. No DBRMLIB was allocated.

System Action: The TSO attachment facility is ready for more input.

User Response: Specify the LIBRARY parameter, and resubmit the BIND subcommand. Alternatively, you could issue an ALLOCATE command for the DDNAME DBRMLIB and then resubmit the BIND subcommand as originally written.

DSNE110E ssid NOT VALID SUBSYSTEM ID, COMMAND TERMINATED

Explanation: There is no subsystem id with the name identified in the message as 'ssid'. The subsystem identifier you specify (or default to) on the DSN command must exist. This message is the result of specifying (or defaulting to) a nonexistent subsystem identifier. For information on the SYSTEM parameter of the DSN command, refer to *DB2 Command Reference*.

System Action: The DSN processor ends, and control returns to TSO.

User Response: Reissue the command with a valid SYSTEM parameter.

DSNE111E INSTALLATION EXIT REJECTED DSNNAME data-set-name

Explanation: A local installation-supplied exit has rejected the data set name identified in the message as 'data-set-name'.

System Action: The TSO attachment facility is ready for more input.

User Response: Either correct the data set name specified, or arrange to authorize the original data set name. Resubmit the request.

DSNE112E userid STILL SIGNED ON TO SUBSYSTEM ssid

Explanation: An attempt was made to sign on to DB2 when the user was already signed on.

System Action: Control returns to TSO.

User Response: Log off and log on again.

DSNE113E NOT ABLE TO LINK TO MODULE modname IN DSNNAME data-set-name

Explanation: A DB2 subsystem error occurred during an attempt to link to module 'modname' in data set 'data-set-name'.

System Action: The TSO attachment facility is ready for more input.

User Response: Check that the module exists and that its name is spelled correctly. Enter the correct module name.

DSNE114E THE COMBINATION OF PLAN planid, AUTH ID auth-id, AND SUBSYSTEM ssid IS NOT VALID

Explanation: The resource in message DSNE108E, which will follow this message, is not a valid resource name.

System Action: The TSO attachment facility is ready for more input.

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User Response: Correct the invalid combination, and resubmit the subcommand. The problem is probably caused by a user spelling error. If it is not, check with the system administrator to determine the availability of the needed resource. Your program may need to be bound. See the explanation for message DSNE108 (which accompanies this one) for more information.

DSNE117E NOT ABLE TO LOCATE membername IN DSNNAME data-set-name

Explanation: The 'data-set-name' specified does not contain the member the user wanted to run.

System Action: Control remains with the DSN command processor, and the DSN prompt appears on the terminal. The DSN command processor is ready for another command.

User Response: Correct the PROGRAM or LIBRARY parameter, and resubmit the subcommand.

DSNE118E invalid-command NOT VALID COMMAND

Explanation: The user entered an invalid command. A typing error may be responsible. You may be trying to run a command processor that is either not available on your system or that is not part of your current LNKST or STEPLIB concatenation.

System Action: The TSO attachment facility is ready for more input.

User Response: Either correct the spelling error, or rearrange your library concatenation so that you can access the required command processor. Resubmit the command.

DSNE119E data-set-name NOT PARTITIONED DATA SET

Explanation: The user tried to allocate a sequential data set when a partitioned data set was required.

System Action: The TSO attachment facility is ready for more input.

User Response: Check the data-set-name. The data set you specified is sequential, but you specified a member name. Remove the member name, and resubmit the job.

DSNE120E data-set-name NOT SEQUENTIAL DATA SET

Explanation: The user tried to allocate a partitioned data set when a sequential data set was required.

This message is issued by the following CSECT:
DSNECP69

System Action: The TSO attachment facility is ready for more input.

User Response: Check the data-set-name. The data set you specified is partitioned, but you did not specify a member name. Add a member name, and resubmit the job.

DSNE121E csect-id NOT ABLE TO OPEN DATA SET

Explanation: The DB2 subsystem was unable to open the requested data set.

This message is issued by the following CSECTs:
DSNECP23, DSNECP69

System Action: The TSO attachment facility is ready for more input.

User Response: For information about why the data set could not be opened, read the explanations of the messages that accompany this message. Correct the condition, and resubmit the job.

DSNE122E DATA SET ORGANIZATION MUST BE EITHER SEQUENTIAL OR PARTITIONED. data-set-name IS NOT

Explanation: The DB2 subsystem was unable to open data set 'data-set-name', because it is not a sequential or partitioned data set.

This message is issued by the following CSECT:
DSNECP69

System Action: The TSO attachment facility is ready for more input.

User Response: Correct the data-set-name, or change the data set organization. Resubmit the job.

DSNE123I data-set-name NOT PARTITIONED DATA SET, IT IS IGNORED

Explanation: The data-set-named in the message is required to be partitioned. It is not and, consequently, was ignored.

System Action: DSN will attempt to continue BIND processing.

User Response: Correct the subcommand, and resubmit it.

DSNE124E DATA SET data-set-name, MEMBER member-name IN USE, TRY LATER

Explanation: The member contained in 'data-set-name' is currently in use. This message is normally issued when another user is updating the specified member.

This message is issued by the following CSECT:
DSNECP69

System Action: The TSO attachment facility is ready for more input.

User Response: Wait until the member is available

and reissue your DCLGEN request.

DSNE125E DATA SET *data-set-name* IN USE, TRY LATER

Explanation: The sequential data set 'data-set-name' is currently in use. This message is normally issued when another user is updating the specified data set.

This message is issued by the following CSECT:
DSNECP69

System Action: The TSO attachment facility is ready for more input.

User Response: Wait until the data set is available and reissue your DCLGEN request.

DSNE126E THE DB2 OPERATOR IS STOPPING THE SUBSYSTEM. PLEASE END YOUR DSN SESSION

Explanation: The operator has requested that DB2 quiesce. The user should promptly finish the current task and terminate the DSN session so that this can take place. This message may be followed by message DSNE127I.

This message is issued by the following CSECT:
DSNECP00

System Action: No new users will be permitted to initiate DB2 sessions. Current users will be permitted to work until they terminate their connections to DB2.

User Response: End your DSN session as soon as possible.

DSNE127I THE DB2 OPERATOR IS STOPPING THE SUBSYSTEM. DSN IS TERMINATING

Explanation: The operator has requested that DB2 terminate.

System Action: DB2 will shut down, interrupting user activities as necessary. DSN will terminate immediately and return the user to TSO.

User Response: Reinitiate your session when DB2 returns.

DSNE128I DB2 IS ABNORMALLY ENDING. DSN IS TERMINATING

Explanation: DB2 has encountered a problem from which it cannot recover.

System Action: DB2 is abending. DSN terminates immediately and returns the user to TSO.

User Response: Reinitiate your session when DB2 returns.

DSNE130I MAXIMUM NUMBER OF DB2 USERS REACHED. YOUR RETRY COUNT IS ZERO

Explanation: The number of concurrent connections to DB2 is restricted. The number is specified in the installation parameters in member DSN6SYSP. For TSO foreground, see parameter IDFORE. For background jobs, see parameter IDBACK. The DSN request has been denied, because the current number of DB2 connections in the system has reached the installation-specified limit.

System Action: Control returns to TSO.

User Response: Resubmit the DSN command when activity using DB2 has diminished. If still unsuccessful, see the system programmer about the installation parameters.

DSNE131I MAXIMUM NUMBER OF DB2 USERS REACHED. WILL RETRY *nnn* MORE TIMES

Explanation: The number of concurrent connections to DB2 is restricted. The number is specified in the installation parameters in member DSN6SYSP. For TSO foreground, see parameter IDFORE. For background jobs, see parameter IDBACK. The DSN request was denied because the current number of DB2 connections in the system reached the installation specified limit.

The DSN connection to DB2 is attempted '*nnn*' more times. The number of retries is determined by the RETRY parameter on the DSN command. For more information, refer to *DB2 Command Reference*.

This message is issued every 30 seconds (and each time '*nnn*' is decreased by 1) until the connection is made or until '*nnn*' is decreased to zero.

System Action: DSN repeats the connection attempt until the connection is made or the retry count is decreased to 0.

User Response: If all retry attempts fail, resubmit the DSN command when DB2 activity diminishes. If still unsuccessful, see the system programmer about the installation parameters.

DSNE132I DB2 IS OPERATING IN RESTRICTED ACCESS MODE. MAINTENANCE PERSONNEL ONLY

Explanation: DB2 is not available for normal operation. It is only available to service personnel.

System Action: Control returns to the caller. Your request was not processed. The DSN command processor was unable to connect to DB2.

User Response: Wait until DB2 is available for general use, then resubmit your request.

DSNE133E *csect-name* **RELEASE LEVELS NOT COMPATIBLE. DSN=*release_level*, DB2=*release_level***

Explanation: The DSN command processor, perhaps running under the control of DB2I, has detected a release level incompatibility between itself and DB2. The current *release_level* of the DSN command processor code and the DB2 subsystem load modules is indicated as a string of three numeric characters as follows:

- Version
- Release
- Modification level

System Action: The DSN command processor terminates.

User Response: Check that your method of invoking DSN or DB2I allocates the correct libraries for DSN. If you used JCL or a TSO logon procedure to execute DSN code, check your JOBLIB and STEPLIB allocations. If you used a CLIST to execute DSN, insure that you obtained the correct version of the DSN code. See your system programmer if you invoke DSN using procedures supplied by your system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: If you are unable to determine the problem, you can trace DSN execution through DB2I or the DSN command processor.

Problem Determination: Insure that coexistence is supported on both release levels (DSN and DB2). If coexistence is supported, insure that the lower level release has the correct SPE level code support that is required to coexist with the current higher level release.

For more information about coexistence and SPEs, refer to the program directory or preventative service planning (PSP) updates.

DSNE136I **DB2 IS OPERATING IN RESTART LIGHT MODE. INDOUBT RESOLUTION ONLY**

Explanation: The DB2 member is not available for normal operation. It is only available to commit coordinators that have indoubt units of recovery that need to be resolved with this member.

System Action: Control returns to the caller. Your request was not processed. The DSN command processor was unable to connect to DB2.

User Response: Wait until this DB2 is available for general use, then resubmit your request. Or, request connection to a different DB2 member in the data sharing group (for example, by using the DB2 group attach name).

DSNE231A **ONE NAME IS REQUIRED TO FREE A PLAN OR A PACKAGE**

Explanation: The user has attempted to use the FREE PLAN or PACKAGE panel without specifying a plan or package name.

System Action: The TSO attachment facility is ready for more input.

User Response: Enter the name of a plan or package, or (*) to indicate 'all'.

DSNE232A **CONNECTION NAME REQUIRES ENABLE/DISABLE OF CONNECTION TYPE**

Explanation: The user indicated that specific connection names were to be specified for ENABLE or DISABLE, but the associated connection type field was not updated. The ENABLE or DISABLE of connection names requires the corresponding connection type to also be specified for ENABLE or DISABLE.

System Action: The TSO attachment facility is ready for more input.

User Response: Enter Y (Yes) on the connection type for the associated connection names.

DSNE233A **MEMBER NAME MUST NOT BE SPECIFIED MORE THAN ONCE**

Explanation: The LIBRARY field containing the data set name, also contains a member name.

System Action: The TSO attachment facility is ready for more input.

User Response: The member name must be specified only once, and must be specified on the MEMBER field.

DSNE234A **EITHER DBRM MEMBER OR INCLUDE PACKAGE LIST MUST BE SPECIFIED**

Explanation: The BIND PLAN subcommand requires either a DBRM member name or a package list as input, neither was specified.

System Action: The TSO attachment facility is ready for more input.

User Response: Enter a DBRM member name(s), or specify that a package list is to be included. Both options are also allowed.

DSNE235A *plan/package* **NAME IS A DUPLICATE OF PRIMARY *plan/package* NAME**

Explanation: In addition to the primary 'plan' or 'package' name specified on the REBIND or FREE subcommand panel, the user also specified that additional plans or packages were to be included in the list. The primary 'plan' or 'package' name was again

specified to be included in the list.

System Action: The duplicate of the primary 'plan' or 'package' name is automatically deleted from the list to avoid errors during subcommand processing. The TSO attachment facility is ready for more input.

User Response: Complete the list of additional plans or packages.

DSNE236A SPECIFY A CONNECTION TYPE TO ENABLE OR DISABLE

Explanation: The user indicated that individual connection types were to be ENABLED or DISABLED, but no specific connection types were specified.

System Action: The TSO attachment facility is ready for more input.

User Response: Enter Y (YES) for each individual connection type to ENABLE, or DISABLE.

DSNE237A SPECIFY ENABLE ALL OR SPECIFIC CONNECTION TYPES

Explanation: In addition to requesting that all connection types be enabled, the user also requested that specific connection types be enabled. The enable of all connection types includes the enable of specific connection types.

System Action: The TSO attachment facility is ready for more input.

User Response: Specify specific connection types to be enabled, or specify that all connection types are to be enabled.

DSNE240A ISPF RETURNED AN UNEXPECTED CODE WHILE CLOSING A TABLE

Explanation: An ISPF error return code was encountered when attempting to perform a TBCLOSE for an ISPF table while processing the current subcommand panel.

System Action: TSO processing for the current subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: Verify that the ISPF table library allocated to the DSNETBLS DD statement has sufficient space or directory entries available. Also refer to the ISPF error log for additional diagnostic information.

DSNE241A INTERNAL PROCEDURE WAS PASSED AN INVALID NUMBER OF ARGUMENTS

Explanation: A TSO Interpreter error was encountered while executing a subroutine during the processing of the current subcommand.

System Action: TSO processing for the current subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: Notify the IBM support center that an error was encountered in the TSO SYSCALL instruction.

Problem Determination: The TSO SYSCALL instruction is not passing all the parameters to a subroutine defined within the CLIST.

DSNE242A ISPF RETURNED AN UNEXPECTED CODE WHILE SETTING SEARCH ARGUMENTS

Explanation: An ISPF table for the current function does not contain the expected column or table format.

System Action: TSO processing for the current subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: Delete the ISPF table in error. The table is recreated automatically during the next invocation of the DB2I function.

Problem Determination: The format of the ISPF table was changed since the last successful use of the table. Refer to the DB2I ISPF table library allocated to the DSNETBLS DD statement, and examine the ISPF error log for additional diagnostic information.

DSNE243A ISPF RETURNED AN UNEXPECTED CODE DURING A TABLE DISPLAY

Explanation: An ISPF error was encountered when attempting to display a DB2I table panel.

System Action: TSO processing for the current subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: Insure that the DB2I panel and panel library are established correctly. If the format of both is correct, then use ISPF option 7.2 to test the panel for additional errors.

Examine the ISPF error log for additional error information and determine the name of the panel to be displayed.

DSNE244A CANNOT SAVE CREATED TABLE, VERIFY SPACE IN TABLE LIBRARY

Explanation: An ISPF TBSAVE function returned with a condition code greater than zero.

System Action: TSO processing for the current subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: Verify that the ISPF

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table library allocated to the DSNETBLS DD statement has sufficient space and directory entries available. Also refer to the ISPF error log for additional diagnostic information.

DSNE245A ISPF RETURNED AN UNEXPECTED CODE WHILE ADDING A ROW TO A TABLE

Explanation: An ISPF TBADD function returned with a condition code greater than four.

System Action: The TSO attachment facility is ready for more input.

User Response: Enter the DB2I CANCEL command, and notify the system programmer.

System Programmer Response: Verify that the user has enough memory to perform ISPF functions. Also refer to the ISPF error log for additional diagnostic information.

DSNE246A ISPF RETURNED AN UNEXPECTED CODE WHILE DELETING A ROW

Explanation: An ISPF TBDELETE function returned with a condition code greater than zero.

System Action: TSO processing for the current subcommand is terminated.

User Response: Enter the DB2I CANCEL command, and notify the system programmer.

System Programmer Response: Verify that the user has enough memory to perform ISPF functions. Also refer to the ISPF error log for additional diagnostic information.

DSNE247A ISPF RETURNED AN UNEXPECTED CODE WHILE UPDATING A ROW

Explanation: An ISPF TBPUT function returned with a condition code greater than four.

System Action: TSO processing for the current subcommand is terminated.

User Response: Enter the DB2I CANCEL command, and notify the system programmer.

System Programmer Response: Verify that the user has enough memory to perform ISPF functions. Recreate the user actions that lead to the failure. Also refer to the ISPF error log for additional diagnostic information.

DSNE248A COMMAND ENTERED CONTAINS INVALID CHARACTERS, RESPECIFY

Explanation: The command entered at the command line contains an invalid character, the command must be reentered.

System Action: The TSO attachment facility is ready for more input.

User Response: Correct the invalid command entry.

DSNE250A PLEASE ENTER THE COMMAND AT THE LINE WITH THE PLAN/PACKAGE NAME

Explanation: SELECT or RESET commands must be entered on the line where the PLAN/PACKAGE name is shown. This line contains the name of the PLAN/PACKAGE, while the secondary line(s) do not.

System Action: The line command is rejected. The TSO attachment facility is ready for more input.

User Response: Reenter the line command on the primary PLAN/PACKAGE line(s).

DSNE252A JCL WAS NOT CREATED, ERROR *errcode* WHILE DOING *function_name* FUNCTION

Explanation: Error code '*errcode*' was received while doing a function '*function_name*', the JCL was not created.

Severity: 20

System Action: Refer to *z/OS ISPF Dialog Developer's Guide* for the cause of this error.

User Response: Contact your systems programmer.

Problem Determination: Use the return code/function combination to find the causes for the problem in *z/OS ISPF Dialog Developer's Guide* and correct the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 21.

DSNE283A THE , (COMMA) OPTION IS INCOMPATIBLE WITH THE *hostlang* LANGUAGE

Explanation: The user tried to select the '*hostlang*' APPLICATION LANGUAGE and the comma option of the DECIMAL POINT field on the DB2I defaults panel. This combination is not supported.

System Action: The defaults panel is displayed again.

User Response: Either change the APPLICATION LANGUAGE field or the DECIMAL POINT field. If you need the C (C/370 Compiler), then the DECIMAL POINT field must contain a decimal point (.).

DSNE288A YOU CANNOT SPECIFY (RUN)=YES WITH CICS OR IMS

Explanation: Application programs that make CICS or IMS calls cannot be run from the TSO environment. They can, however, be precompiled, bound, compiled,

and linked under TSO. The user should specify N on the RUN panel when preparing a CICS or IMS application.

System Action: The system is waiting for new input to the panel.

User Response: Change the RUN option to N.

DSNE291A ALL DB2 COMMANDS BEGIN WITH A DASH

Explanation: The user omitted the DB2 command recognition character that must precede all DB2 commands.

System Action: The DB2 commands panel is displayed again so the user can resubmit the command.

User Response: Add the DB2 command recognition character, and reenter the command.

DSNE292I DATA SET *data-set-name* NOW CONTAINS YOUR JCL

Explanation: DB2I has just created some JCL for you. The JCL now resides in data set '*data-set-name*'. You can now edit this data, if desired. The TSO SUBMIT command will start the job running in background.

System Action: The system is waiting for your next request.

User Response: You can start another DB2I job or leave the panel.

DSNE293A MEMBER NAME IS REQUIRED. YOUR PROGRAM MUST BE IN A PDS

Explanation: The user either has attempted to run a program that is not in a partitioned data set or has forgotten to specify a member name.

System Action: The RUN panel will be displayed so that the user can specify a member name and try the run again.

User Response: Specify a member name, and rerun the program.

DSNE294I SYSTEM RETCODE=*hex-code* USER OR DSN RETCODE=*decimal-code*

Explanation: A DB2I function has just completed. The return codes for that function are returned in this message. The variable '*hex-code*' is a 3-digit hexadecimal number; the variable '*decimal-code*' is a 3-digit decimal number. Refer to the appropriate MVS publication for explanations of the return codes.

System Action: DB2I is ready for another execution cycle unless other messages appeared indicating that DB2 is unavailable.

User Response: You may have to change input

parameters to correct unsatisfactory completion codes.

DSNE295A YOU CANNOT DISPLAY AND RESTART A UTILITY AT THE SAME TIME

Explanation: You have set options on the DB2I Utilities panel that call for conflicting actions. You can either DISPLAY the status of a utility, or you can RESTART a utility, but you cannot do both.

System Action: The system is waiting for new input to the panel.

User Response: Either change the RESTART option to NO, or select a different FUNCTION.

DSNE296A YOU CANNOT TERMINATE AND RESTART A UTILITY AT THE SAME TIME

Explanation: You have set conflicting options on the DB2I Utilities panel. You can either TERMINATE a utility, or you can RESTART a utility, but you cannot do both.

System Action: The system is waiting for new input to the panel.

User Response: Either change the RESTART option to NO, or select a different FUNCTION.

DSNE297A ENTER DATA SET NAME: COPYDSN OR RCPYDSN1

Explanation: You have not specified a data set name for the COPY utility. A data set name for the local/current site (COPYDSN), and/or the recovery site (RCPYDSN1) is required.

System Action: The system is waiting for new input to the panel.

User Response: Enter a data set name for COPYDSN, and/or RCPYDSN1.

DSNE298A ERROR DURING EDIT: CLIST *data set name*

Explanation: Errors were encountered while attempting to change the online book data set names in the DB2 CLIST member DSNEMC01. No data set names were changed.

System Action: The system is waiting for new input to the panel.

User Response: Ensure that the CLIST data set name is correct and contains the DSNEMC01 CLIST member to be changed. This CLIST data set must also be available to the TSO user ID in WRITE mode. This error will continue to be displayed on the panel until the error is resolved or the user exits the panel (END).

System Programmer Response: If you are unable to determine the problem, you can trace the DB2 CLIST execution while displaying this panel.

Problem Determination: Examine the CLIST trace output for any TSO/ISPF nonzero return codes encountered during CLIST execution.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNE340I INTERNAL ERROR – ILLEGAL TYPE IN MODULE *module-name*

Explanation: An internal DB2 problem has occurred. The named module has detected a nonexistent SQLTYPE.

User Response: Collect the SPUFI trace and ISPF log, and notify either the system programmer or the database administrator.

You may have to rerun the failing job after you have turned on trace. This will enable you to send trace messages to the ISPF log.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNE351A EDIT PROCESSING OPTION MUST BE Y (YES) OR N (NO)

Explanation: The user specified an edit option other than 'YES', 'NO', or the abbreviation 'Y' or 'N'. A valid user response determines whether SPUFI invokes the ISPF editor to allow the user to edit the input data set.

System Action: SPUFI will wait until the user enters a valid response.

User Response: Type in a 'Y' or an 'N', and press 'ENTER'.

DSNE352A EXECUTE PROCESSING OPTION MUST BE Y (YES) OR N (NO)

Explanation: The user specified an execute option other than 'YES', 'NO', or the abbreviation 'Y' or 'N'. A valid user response determines whether SPUFI executes the SQL statements in the user input data set.

System Action: SPUFI waits until the user enters a valid response.

User Response: Type in a 'Y' or an 'N', and press 'ENTER'.

DSNE353A BROWSE PROCESSING OPTION MUST BE Y (YES) OR N (NO)

Explanation: The user specified a browse option other than 'YES', 'NO', or the abbreviation 'Y' or 'N'. A valid user response determines whether SPUFI invokes ISPF BROWSE to allow the user to browse the output data set.

System Action: SPUFI will wait until the user enters a valid response.

User Response: Type in a 'Y' or an 'N', and press 'ENTER'.

DSNE354A AUTOCOMMIT PROCESSING OPTION MUST BE Y (YES) OR N (NO)

Explanation: The user specified an AUTOCOMMIT option other than 'YES', 'NO', or the abbreviation 'Y' or 'N'. A valid user response determines whether SPUFI automatically commits all the changes to the database subsystem. This was encountered as a result of executing the user's SQL statement(s). The commit is done at the end of the processing of an input data set, if it is requested and if there has been no SQL execution error.

System Action: SPUFI waits until the user enters a valid response.

User Response: Type in a 'Y' or an 'N', and press 'ENTER'.

DSNE355A CHANGE DEFAULTS PROCESSING OPTION MUST BE Y (YES) OR N (NO)

Explanation: The user specified a change-default option other than 'YES', 'NO', or the abbreviation 'Y' or 'N'. A valid user response determines whether SPUFI displays the current-session SPUFI defaults and allows the user to change the defaults.

System Action: SPUFI waits until the user enters a valid response.

User Response: Type in a 'Y' or an 'N', and press 'ENTER'.

DSNE359A OUTPUT DATA SET NAME REQUIRED FOR EXECUTE OR BROWSE

Explanation: The user did not specify the name of the output data set.

System Action: SPUFI waits until the user specifies an output data set.

User Response: Type in the correct entry, and press 'ENTER'.

DSNE360A THE OUTPUT DATA SET MUST RESIDE ON DASD

Explanation: The user has attempted to send the output of SPUFI to a SYSOUT data set. He must enter a generic device class that contains only DASD devices.

System Action: SPUFI waits until the user specifies a valid output device class.

User Response: Type in the correct entry, and press 'ENTER'.

DSNE361I SPUFI PROCESSING COMPLETE

Explanation: This informational message is displayed after SPUFI successfully created the output data set. If errors are encountered before the completion of output data set processing, or during the subsequent BROUSE OUTPUT option for this data set, this message is replaced by either SPUFI or TSO/ISPF error messages.

System Action: The system waits for the next user input.

User Response: At this point you can change the SPUFI panel variable settings to initiate a new SPUFI request, or you can exit SPUFI.

DSNE363A ONLY RR (REPEATABLE READ) OR CS (CURSOR STABILITY) ALLOWED

Explanation: The user has entered an invalid isolation level. This value must be either RR or CS. 'Isolation level' here refers to the degree to which the SPUFI user wants to isolate SQL execution from the effects of other concurrently executing DB2 applications.

If the repeatable read (RR) level is specified and the AUTOCOMMIT option is 'YES', other applications can modify the selected database values as soon as the SPUFI EXECUTE phase is completed and as soon as the automatic COMMIT (or ROLLBACK, if an error was encountered,) operation is performed. Therefore, it is possible that the retrieved data being browsed by the user has already been modified by another application.

If the RR level is specified and the AUTOCOMMIT option is 'NO', no other DB2 application executing concurrently can change any of the selected database values until the SPUFI user issues either a COMMIT or a ROLLBACK. Therefore, other applications might be in a normal wait state while the SPUFI user is browsing the output data set.

If the cursor stability (CS) level is specified, it does not make any difference whether the AUTOCOMMIT option is 'YES' or 'NO'. Other concurrently executing DB2 applications can change the selected database values as soon as the SELECT has completed.

System Action: SPUFI waits until the user specifies either 'RR' or 'CS'.

User Response: Type in the correct entry, and press 'ENTER'.

DSNE364A *token* IS INVALID AS AN SQL STATEMENT TERMINATOR

Explanation: The user has entered an SQL statement terminator (token) that is not supported. The following values are not valid for use as a SQL statement terminator:

- blank
- comma

- single and double quotes
- underscore
- left and right parenthesis

System Action: The statement cannot be executed.

User Response: Specify a valid SQL statement terminator.

DSNE365A SQL STATEMENT TERMINATOR HAS BEEN CHANGED TO *token*

Explanation: The SPUFI input data set contains a #SET statement that changes the SQL statement terminator to *token*.

System Action: *token* is the SQL statement terminator until another #SET statement changes it or the end of the input data is reached.

DSNE366A ONLY THE LISTED RECFM TYPES ARE ALLOWED

Explanation: The user has entered an invalid record format for the output data set.

System Action: The system waits until the user enters one of the allowed RECFM types.

User Response: Enter a RECFM of V, VB, VBA, F, FB, or FBA.

DSNE367A ACTION MUST BE C (COMMIT) OR R (ROLLBACK) OR D (DEFER)

Explanation: This message requests the user to make a commit action decision.

User Response: To commit all the changes made since the last commit point, enter a 'C'. To undo all the changes that have been made since the last commit point, enter an 'R'. To defer the decision, enter a blank.

DSNE368A YES OR NO MUST BE ENTERED FOR EACH PROCESSING OPTION

Explanation: One of the processing options was left blank or set to blank by the user.

User Response: Enter 'YES' or 'NO' for each processing option.

DSNE370A INPUT DATA SET COULD NOT BE OPENED

Explanation: The input data set could not be opened because of invalid data set attributes. The logical record length (LRECL) of the input data set must be 80K. The record format (RECFM) must be either F or FB. The input data set may be either sequential or partitioned.

User Response: Specify an input data set having valid attributes.

DSNE371A OUTPUT DATA SET COULD NOT BE OPENED

Explanation: The output data set could not be opened because of invalid data set attributes. The logical record length (LRECL) must be at least 80KB and less than 32KB. The record format (RECFM) must be F, FB, FBA, V, VB, or VBA. The output data set must be sequential.

User Response: Either specify an output data set having valid attributes, or enter correct attributes for this data set.

DSNE372A OUTPUT DATA SET MUST BE SEQUENTIAL

Explanation: The user has requested that a nonsequential output data set contain the output from execution of SQL statements.

User Response: Enter the data-set-name of a sequential data set for the output data set.

DSNE374A OUTPUT DATA SET MUST BE SEQUENTIAL

Explanation: The output data set is of unrecognized organization. It must be sequential.

System Action: Processing does not begin until the panel entries are correct and the user presses 'ENTER'.

User Response: The output data set must be sequential. Enter a sequential data-set-name (no member) in the output data set field.

DSNE375A ACCESS TO INPUT DATA SET NOT AUTHORIZED

Explanation: A local installation-supplied exit has rejected access to the input data set specified by the user.

User Response: Either specify the name of a data set for which authorization will be allowed, or arrange to authorize the original data-set-name. Resubmit the request.

DSNE376A ACCESS TO OUTPUT DATA SET NOT AUTHORIZED

Explanation: A local installation-supplied exit has rejected access to the output data set.

User Response: Either specify the name of a data set for which authorization will be allowed, or arrange to authorize the original data-set-name. Resubmit the request.

DSNE377A INPUT DATA SET RECFM MUST BE F OR FB WITH LRECL 79 OR 80

Explanation: The user specified an input data set that does not have the required attributes (F or FB with LRECL 79 or 80).

Note: If the input data set has an LRECL of 79, SPUFI assumes the data set was exported by QMF. Therefore, it is recommended that you should not use an LRECL of 79 for a data set that is not exported from QMF.

User Response: Correct the input data set attributes, and try again.

DSNE378A ASA CONTROL CHARACTER NOT ALLOWED ON INPUT DATA SET RECFM

Explanation: The user attempted to use an input data set containing forms control characters or machine control characters. These characters are not allowed on the input data set.

User Response: Remove the forms control characters or machine control characters from the input data set, and try again.

DSNE379A text from DYNALLOC

Explanation: An attempt to allocate a data set has failed. This message contains the secondary explanation for the failure.

User Response: Correct the condition, and resubmit the subcommand.

DSNE381A UNEXPECTED ALLOCATION RETURN CODE return-code, reason-code

Explanation: An unexpected return code from SVC 99 was received. The return code received is the DYNALLOC (SVC 99) return code. Refer to the appropriate MVS publication for explanations of the return and reason codes.

User Response: Correct the condition, and resubmit the subcommand.

DSNE383A INVALID OUTPUT DATA SET RECORD FORMAT. OPEN RETURN CODE rcode

Explanation: The data set format was invalid. Acceptable record formats are: F, FB, FBA, V, VB, or VBA.

User Response: Enter a valid value in the record format field.

DSNE384A UNEXPECTED DEALLOCATION
RETURN CODE return-code,
reason-code

Explanation: A deallocation request has returned an unexpected return and reason code.

User Response: Refer to the appropriate MVS publication for explanations of the return and reason codes.

DSNE385A ENTER MEMBER NAME. INPUT DATA
SET IS PARTITIONED

Explanation: The input data set is partitioned, and the user did not enter the member name on the SPUFI main menu.

System Action: Processing does not begin until the panel entries are correct. If any of the processing options are changed, this message is ignored, and processing will proceed according to the new settings.

User Response: Enter the member name.

DSNE386A MEMBER member-name NOT
PRESENT IN SPECIFIED INPUT DATA
SET

Explanation: The named member is not in the input data set.

System Action: Processing does not begin until the panel entries are correct.

User Response: Enter a correct member name or a correct data-set-name.

DSNE387I DSNTIAR ERROR. RETURN CODE =
return-code

Explanation: An internal DB2 error has occurred. DSNTIAR attempted to format a message to explain a nonzero SQL code, but the attempt failed.

User Response: Notify the system programmer.

System Programmer Response: Print the ISPF log, and collect a dump of the TSO address space. Refer to Part 2 of *DB2 Application Programming and SQL Guide* for failure analysis procedures.

DSNE388A INPUT DATA SET MUST BE
SEQUENTIAL OR PARTITIONED

Explanation: The input data set organization is not recognized.

System Action: Processing does not begin until the panel entries are correct.

User Response: Enter a data-set-name with sequential or partitioned organization. It may be necessary to allocate a sequential or partitioned data set.

DSNE389A A MEMBER HAS BEEN SPECIFIED
FOR A SEQUENTIAL DATA SET

Explanation: The user has specified a member as input to SPUFI. However, the input data set specified is sequential.

System Action: Processing does not begin until the panel entries are correct.

User Response: Enter the data-set-name without attempting to specify a member.

DSNE390A THE OUTPUT DATA SET ATTRIBUTES
ARE INCONSISTENT

Explanation: This message indicates that the user made one of three possible errors in specifying block size and logical record length (LRECL):

- The user specified a record format (RECFM) of F, but the block size is not equal to the logical record length (LRECL)
- The user specified a record format (RECFM) of F, FB, or FBA, but block size is not evenly divisible by logical record length (LRECL).
- The user specified a record format (RECFM) of VB, but the block size is less than logical record length (LRECL) + 4. The user must allow 4 bytes for the block header.

User Response: Specify logical record length (LRECL) and block size appropriately on the DSNE3902 panel.

DSNE391I FREEMAIN ERROR IN MODULE
module-name

Explanation: SPUFI encountered a FREEMAIN error in the specified module.

System Action: This message is logged in the ISPF log data set. No abend occurs.

User Response: Notify the system programmer or system administrator.

System Programmer Response: Print the ISPF log, and collect a dump of the TSO address space. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNE392I GETMAIN ERROR IN MODULE
module-name

Explanation: SPUFI encountered a GETMAIN error in the specified module.

System Action: This message is logged in the ISPF log data set. User abend X'00C50003' is issued.

User Response: Notify the system programmer or system administrator.

System Programmer Response: Ensure that enough

storage is allocated to the TSO user.

**DSNE393I SPF VDELETE ERROR IN MODULE
 DSNESM90. ERROR CODE = flag**

Explanation: An internal SPUFI error has occurred. CSECT DSNESM90 tried to delete an ISPF dialog variable that was not previously defined.

System Action: This message is logged in the ISPF log data set. No abend is issued. However, if the problem persists, notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Record the error code 'flag'. It has no user significance, but it can assist the IBM Support Center in resolving the problem.

**DSNE395I UNEXPECTED RETURN CODE FROM
 SPF SERVICE**

Explanation: A return code of 4 from ISPF DISPLAY or a return code of 8 from the ISPF editor was encountered.

System Action: The message is displayed on the SPUFI panel and logged in the ISPF log data set. No user abend is issued.

User Response: Notify the system programmer.

System Programmer Response: If a new release of ISPF is used, determine whether the above return codes are now assigned meaning by ISPF.

Problem Determination: This message may be issued if a previously unassigned (by ISPF) return code from the ISPF DISPLAY or EDIT function is encountered. If a new release of ISPF is used, determine whether the above return codes are now assigned meaning by ISPF.

**DSNE396A YOU CANNOT SPECIFY DEFER WHEN
 LEAVING SPUFI**

Explanation: You have attempted to leave SPUFI with outstanding database changes not yet committed or rolled back. You can't leave SPUFI unless a decision has been made to commit or rollback.

System Action: The system is waiting for new input to the panel.

User Response: Specify COMMIT or ROLLBACK.

DSNE415A csect-name TYPE IS DATE

Explanation: This is a SPUFI trace message. SPUFI has looked in the SQLTYPE field of the SQLDA and detected a data type of DATE.

DSNE416A csect-name TYPE IS TIME

Explanation: This is a SPUFI trace message. SPUFI has looked in the SQLTYPE field of the SQLDA and detected a data type of TIME.

DSNE417A csect-name TYPE IS TIMESTAMP

Explanation: This is a SPUFI trace message. SPUFI has looked in the SQLTYPE field of the SQLDA and detected a data type of TIMESTAMP.

**DSNE457I csect-name ARITHMETIC ERROR IN
 THE CURRENT ROW AND COLUMN**

Explanation: This is a SPUFI trace message. SPUFI has looked in the SQLDA and detected an arithmetic error. The indicator variable associated with this value contains -2.

**DSNE601I SQL STATEMENTS ASSUMED TO BE
 BETWEEN COLUMNS nn AND nn**

Explanation: This message indicates which record columns in the input data set are scanned for SQL statements. For data sets of type COBOL, columns 8 through 72 are scanned. For STANDARD data set types, if the LRECL is 79 then columns 1 through 71 are scanned, and if the LRECL is 80 then columns 1 through 72 are scanned.

System Action: This message is written to the SPUFI output data set along with other summary messages.

**DSNE603E INPUT STATEMENT HAS
 UNBALANCED APOSTROPHES**

Explanation: An opening apostrophe was detected in an input record, but the end of data set was reached before a closing apostrophe was encountered.

System Action: SPUFI processing stops. Correct the error, and start again.

User Response: A closing apostrophe was probably omitted from a literal value. Add the missing apostrophe, and execute the input file again.

**DSNE604E THE SQL STATEMENT EXCEEDS THE
 MAXIMUM ALLOWED LENGTH**

Explanation: This message indicates that the preceding SQL statement in the output data set exceeds the maximum length allowed. An SQL statement may span up to a maximum of 455 input records.

System Action: SPUFI processing stops. Correct the error, and start again.

User Response: Edit the SQL statement in question so that it resides on fewer input records.

DSNE605E THE INPUT DATA SET IS EMPTY

Explanation: The user has specified an input data set that does not contain any valid SQL statements.

System Action: SPUFI processing stops. Correct the error, and start again.

User Response: Edit SQL statements into the specified data set, or specify another input data set that contains valid SQL statements.

DSNE606E INVALID USE OF AN SQL STATEMENT TERMINATOR

Explanation: An SQL statement terminator has been used improperly in an SQL input statement. Either two successive statement terminators were encountered, or a series of blanks followed by a terminator was detected. The proper use of the SQL statement terminator is to delimit the end of a valid SQL statement.

System Action: SPUFI processing stops. Correct the error, and start again.

User Response: Remove the extraneous terminator from the input data set.

DSNE607E PREVIOUS INPUT RECORD HAS UNBALANCED SO/SI CHARACTERS

Explanation: A shift out (SO) character was detected in the previous input record with no corresponding shift in (SI) character in the record. The SO/SI characters delimit a DBCS string in the SPUFI input data set. SPUFI requires that SO/SI characters be paired within an input record.

System Action: SPUFI processing stops.

User Response: A closing SI character was probably omitted from a literal value. Add the missing SI character, and re-execute the input file.

DSNE609E INPUT STATEMENT HAS UNBALANCED QUOTES

Explanation: An opening quote (") was detected in an input record, but a corresponding quote was not found at the end. Two sets of quotes are used to delimit a statement.

System Action: SPUFI processing stops.

User Response: A closing quote was probably omitted from a literal value. Add the missing quote, and execute the input file again.

DSNE610I NUMBER OF ROWS DISPLAYED IS nn

Explanation: Execution of an SQL SELECT statement causes one or more rows of data to be displayed. This message appears in the output data set following the returned data for a SELECT. It gives a count, 'nn', of the number of rows displayed.

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

DSNE611I COLUMN HEADER FOR COLUMN NUMBER nn WAS TRUNCATED

Explanation: An SQL SELECT statement was executed, but the specified column name, identified by 'nn' in the message, was truncated. This truncation occurred either because the column name was longer than the remaining record width or because the name was longer than the user-specified maximum field length.

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

User Response: If the truncation is caused by insufficient record width, use a larger LRECL for the output data set or specify fewer data columns to be returned on the SELECT statement.

If the truncation is caused by the user-specified maximum field length setting, use a larger value for this setting.

DSNE612I DATA FOR COLUMN HEADER name COLUMN NUMBER nn WAS TRUNCATED

Explanation: An SQL SELECT statement was executed, but data for the specified column name, identified by 'nn' in the message, was truncated. This truncation occurred either because the data was longer than the remaining record width or because the data was longer than the user-specified maximum field length.

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

User Response: If the truncation is because of insufficient record width, use a larger LRECL for the output data set or specify fewer data columns be returned on the SELECT statement.

If the truncation is because of the user-specified maximum field length setting, use a larger value for this setting.

**DSNE613I OUTPUT LRECL IS TOO SMALL TO
DISPLAY THE FOLLOWING COLUMNS:**

Explanation: An SQL SELECT statement was executed, but the logical record length of the output data set was not large enough to display the column names and data values of all returned columns. The columns specified following this message were not displayed because of insufficient remaining record width.

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

User Response: This condition can be avoided by using a larger LRECL for the output data set or by specifying that fewer data columns be returned on the SELECT statement.

**DSNE614I AUTOCOMMIT IS NO, NO CHANGES
COMMITTED**

Explanation: The user delayed committing or rolling back changes made during execution of the input file until later in the session. This is done by specifying an AUTOCOMMIT option of 'NO'.

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

User Response: Commit or roll back these changes before ending the session.

DSNE615I NUMBER OF ROWS AFFECTED IS nn

Explanation: This message is written to the output data set following execution of an SQL UPDATE, INSERT, or DELETE statement. 'nn' in the message is a count of the number of rows that were modified as a result of executing the UPDATE, INSERT, or DELETE statement.

Note: In the case of a mass delete of a table in a segmented table space where DB2 does not access nor count the individual rows, this message will not be displayed.

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

**DSNE616I STATEMENT EXECUTION WAS
SUCCESSFUL, SQLCODE IS number**

Explanation: This message is written to the output data set following the successful execution of an SQL statement from the input data set. 'number' specifies the SQL return code for the statement. These return codes are listed in Part 2, "SQL return codes."

System Action: Input data set processing is

completed, and this message is included in the SPUFI output.

**DSNE617I COMMIT PERFORMED, SQLCODE IS
number**

Explanation: When an input file is executed successfully and the user specified an AUTOCOMMIT option of 'YES', this message is written to the output data set to indicate the status of the COMMIT that was performed. 'number' specifies the SQL return code for the COMMIT. These return codes are listed in Part 2, "SQL return codes," on page 11.

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

**DSNE618I ROLLBACK PERFORMED, SQLCODE
IS number**

Explanation: When an error is encountered while executing a SPUFI input file, and the user specified an AUTOCOMMIT option of 'YES', this message will be written to the output data set to indicate the status of the ROLLBACK that was performed. 'number' specifies the SQL return code for the statement. These return codes are listed in Part 2, "SQL return codes," on page 11.

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

**DSNE620I NUMBER OF SQL STATEMENTS
PROCESSED IS nn**

Explanation: This message is written to the output data set after processing all SQL statements in the current input data set. The term 'nn' is a count of the number of SQL statements processed.

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

**DSNE621I NUMBER OF INPUT RECORDS READ
IS nn**

Explanation: This message is written to the output data set after processing all SQL statements in the current input data set. The term 'nn' is a count of the total number of records read from the input data set.

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

**DSNE622I NUMBER OF OUTPUT RECORDS
WRITTEN IS nn**

Explanation: This message is written to the output data set after processing all SQL statements in the current input data set. The term 'nn' is a count of the total number of records written to the output data set.

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

**DSNE623I SYNTAX ERROR AT RECORD xx,
OFFSET xx**

Explanation: A syntax error was detected in the SQL statement preceding this message in the output data set. 'xx' identifies the erroneous line number in the SQL statement, and 'yy' identifies the offset (in characters) of the error within that record.

System Action: Input data set processing is completed, and this message is included in the SPUFI output.

User Response: Correct the specified syntax error in the input data set, and execute the job again.

**DSNE624I UNABLE TO LOAD ISPLINK MODULE.
SPUFI PROCESSING TERMINATED**

Explanation: During SPUFI initialization processing, an error was encountered attempting to LOAD the ISPF interface module, ISPLINK. This module could not be located in the LNKLST or STEPLIB library concatenation.

System Action: SPUFI processing is terminated.

User Response: Rearrange your library concatenation so that the ISPLINK module can be located. This module resides in the ISPF load library.

**DSNE625I CONNECT TO LOCATION (location
name) PERFORMED, SQLCODE IS
number**

Explanation: The SPUFI user has indicated that the SQL statements defined in the input file are to be processed by the server at the remote location specified in the CONNECT LOCATION field of the SPUFI panel.

This message appears in the output file and indicates that an SQL CONNECT request was issued by SPUFI to the specified location name. The 'number' specifies the SQL return code associated with the CONNECT request. These return codes are listed in Part 2, "SQL return codes," on page 11.

System Action: Subsequent processing of the SQL statements in the input file is based upon the successful completion of the CONNECT request. If the request is unsuccessful, the SQL error number and all associated error messages are placed in the output file.

User Response: Respond as indicated by the SQL code returned.

**DSNE626I MAXIMUM OUTPUT LINES FOR
SELECT STATEMENT REACHED
(number), PROCESSING FOR
CURRENT SELECT STATEMENT
TERMINATED**

Explanation: The maximum number of output lines to be displayed for a SELECT statement was reached. Processing of the current SELECT statement is terminated. The maximum number to display is specified by the SPUFI user on the CURRENT SPUFI DEFAULTS panel.

This message appears in the SPUFI output file.

System Action: Processing of subsequent SQL statements in the input file continues.

User Response: If the number of lines displayed is insufficient, you can increase the maximum number of lines to be displayed for SELECT statements on the CURRENT SPUFI DEFAULTS panel and re-execute the SELECT statement.

**DSNE627I csect-id FOR SQLCODE = number,
USER REQUESTED: action**

Explanation: During PREPARE processing of the SQL statement, SPUFI received an SQLCODE (+495) and requested you to respond with the desired action to be taken by SPUFI (CONTINUE or BYPASS).

SPUFI does not consider this to be an SQL statement error and places this message in the SPUFI output file to document the SQLCODE received and the action you requested. *number* specifies the SQL return code associated with the PREPARE request. These return codes are listed in Part 2, "SQL return codes," on page 11.

System Action: SPUFI processing for this statement is based on *action* documented in the message:

- CONTINUE
 - Processing for the current SQL statement continues normally.
- BYPASS
 - Processing for the current SQL statement is terminated without error.

User Response: Respond as indicated by the SQL code returned.

**DSNE800A NO DEFAULT VALUES WERE
CHANGED. PRESS ENTER TO
CONTINUE**

Explanation: The user left panel DSNE800A without changing it. This panel contains all the defaults that can be modified by the user.

System Action: This message is presented on the SPUFI panel DSNE803A. SPUFI waits for the next user input.

User Response: Press 'ENTER' if you want to continue.

**DSNE803A INPUT FILE WAS NOT CHANGED.
PRESS ENTER TO CONTINUE**

Explanation: The user has exited from the ISPF editor without modifying the input data set.

System Action: The system waits for the next user input.

User Response: Press 'ENTER' if you want to continue. The SPUFI panel variable settings can be changed at this point.

**DSNE804A TO CONTINUE, C (COMMIT) OR R
(ROLLBACK) MUST BE SPECIFIED**

Explanation: The user has specified the AUTOCOMMIT=NO option and now wants either to exit or to switch to another DB2 subsystem with outstanding work uncommitted on the current DB2 subsystem.

System Action: DB2 waits for the user to specify either the COMMIT (C) or the ROLLBACK (R) option.

User Response: Enter 'C' or 'R' to continue.

**DSNE808A EDIT SESSION HAS COMPLETED.
PRESS ENTER TO CONTINUE.**

Explanation: The user has exited from the ISPF editor.

System Action: SPUFI waits form the next user input.

User Response: Press 'Enter' if you want to continue. Press 'END' if you want to terminate your SPUFI session. The SPUFI panel variable settings can be changed at this point.

DSNE901I EXECUTION COMPLETE

Explanation: Execution of a subcommand has successfully completed.

System Action: The TSO attachment facility is ready for more input.

**DSNE903I WARNING, DECLARATION HAS SAME
NAME AS TABLE table-name**

Explanation: A DCLGEN subcommand has a 'STRUCTURE' parameter that is the same as the 'table name' specified in the message. The requested declaration has been created, but this could cause conflicts with internal names.

System Action: DCLGEN execution continues.

User Response: Choose a different 'STRUCTURE' parameter.

**DSNE904I EXECUTION COMPLETE, MEMBER
member-name REPLACED**

Explanation: A DCLGEN subcommand executed successfully, replacing the 'member-name' specified in the message.

System Action: The TSO attachment facility is ready for more input.

**DSNE905I EXECUTION COMPLETE, MEMBER
member-name ADDED**

Explanation: A DCLGEN subcommand executed successfully, adding the 'member-name' specified in the message to the data set specified in the DCLGEN subcommand.

System Action: The TSO attachment facility is ready for more input.

**DSNE908E csect-name INVALID USE OF parameter
IN PARAMETER LIST OF KEYWORD
keyword.**

Explanation: An invalid parameter was specified in the parameter list of the specified keyword.

Severity: 8

System Action: Subcommand processing is terminated. The TSO attachment facility is ready for more input.

User Response: Correct the parameter list in error, and resubmit the job.

**DSNE909E csectname WARNING, DBCSSYMBOL
KEYWORD IS INVALID WITH
LANGUAGE language KEYWORD
IGNORED**

Explanation: You specified the DBCSSYMBOL keyword in your DCLGEN invocation, but your LANGUAGE keyword value was not COB2. DBCSSYMBOL only applies to COB2 PICTURE clauses. DCLGEN will ignore this keyword.

System Action: DCLGEN processing continues.

User Response: In the future, do not specify the DBCSSYMBOL keyword unless the LANGUAGE keyword value is COB2.

**DSNE910E csectname WARNING, THE OWNER
KEYWORD WAS SPECIFIED WITH A
QUALIFIED TABLE NAME. OWNER
KEYWORD IGNORED**

Explanation: You specified both the OWNER keyword and a qualified table name for the TABLE keyword in

your DCLGEN invocation. The table qualifier will be used as the table owner, and the OWNER keyword will be ignored.

System Action: DCLGEN processing continues.

User Response: In the future, specify either a qualified table name for the TABLE keyword, or an unqualified table name for the TABLE keyword along with the OWNER keyword.

DSNE920E member-name ALREADY EXISTS, SPECIFY ACTION(REPLACE) TO REPLACE

Explanation: The DCLGEN user tried to overwrite an old declaration with a new one without specifying REPLACE on the 'ACTION' parameter.

System Action: The TSO attachment facility is ready for more input.

User Response: Change the 'ACTION' parameter to REPLACE (if that's actually what you want to do), and resubmit the command.

DSNE921E REQUIRED PARAMETER table-parameter IS MISSING

Explanation: Your DCLGEN subcommand was missing the required TABLE parameter.

System Action: Your DCLGEN subcommand was not processed. The DSN command processor issued a return code of 8. DSN is ready for more input.

User Response: Resubmit the DCLGEN subcommand with a TABLE parameter.

DSNE922E TABLE NAME QUALIFIER OF qualifier IS TOO LONG. CANNOT EXCEED 8 CHARACTERS IN LENGTH

Explanation: DCLGEN detected an invalid TABLE parameter. The table name qualifier (the left portion of the table name) was too long.

System Action: Your DCLGEN subcommand was not processed. The DSN command processor issued a return code of 8. DSN is ready for more input.

User Response: Resubmit the DCLGEN subcommand with a shorter table name qualifier.

DSNE923E CSECT csect-name FOUND AN UNRECOGNIZED LANGUAGE unknown

Explanation: This is a DCLGEN subsystem error, not a user error. The language parameter 'unknown' is not known to the subsystem.

System Action: The TSO attachment facility is ready for more input.

User Response: Report the problem to the system programmer.

System Programmer Response: Re-create the problem with DSN tracing turned on. Collect the trace stream in the DSNTRACE data set. Use the ABEND subcommand of the DSN command processor to collect a dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNE924E PARSE FAILED IN CSECT csect-name PARAMETER parm, FLAG flag

Explanation: This is a DB2 subsystem error, not a user error. The 'PARM' parameter was not correctly parsed. The flag specified was detected as an inappropriate value in a parse results field.

System Action: The TSO attachment facility is ready for more input.

User Response: Report the problem to the system programmer.

System Programmer Response: Re-create the problem with DSN tracing turned on. Collect the trace stream in the DSNTRACE data set. Use the ABEND subcommand of the DSN command processor to collect a dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNE925E BUFFER OVERFLOW IN CSECT csect-name WHILE WRITING string

Explanation: This is a DCLGEN subsystem error. CSECT 'csect-name' detected a buffer overflow condition while attempting to write 'string'.

System Action: The TSO attachment facility is ready for more input.

User Response: Notify the system programmer.

System Programmer Response: Re-create the problem with DSN tracing turned on. Collect the trace stream in the DSNTRACE data set. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNE926E COMMAND REJECTED - command NOT SUPPORTED UNDER command_processor

Explanation: The user entered a TSO TIME or TEST command. These are not supported by DSN or DB2I.

System Action: The user should leave DSN or DB2I, return to TSO, and retry the command. DSN can be run under TSO TEST. The TSO attachment facility is ready for more input.

User Response: Enter the DSN subcommand, or

leave DSN to execute the requested command.

**DSNE927E RUN SUBCOMMANDS REQUIRE
(1)PROGRAM PARM OR (2)PLAN AND
CP PARMS**

Explanation: RUN subcommands may contain (1) the 'PROGRAM' parameter and, optionally, the 'PLAN' parameter or (2) the 'PLAN' and command processor ('CP') parameters. Combinations of (1) and (2) are not allowed.

System Action: The TSO attachment facility is ready for more input.

User Response: Correct the subcommand, and resubmit the job.

**DSNE928E RUN SUBCOMMANDS CANNOT HAVE
A PROGRAM PARM AND A CP PARM**

Explanation: A RUN subcommand cannot contain both the 'PROGRAM' and command processor ('CP') parameters. The subcommand should be resubmitted with only one of the parameters.

System Action: The TSO attachment facility is ready for more input.

User Response: Correct the subcommand, and resubmit the job.

**DSNE929E TABLE NAME LOCATION OF
(location-name) IS TOO LONG.
CANNOT EXCEED 16 CHARACTERS IN
LENGTH.**

Explanation: DCLGEN detected an invalid AT(location) keyword parameter. The specified location name is too long.

System Action: Your DCLGEN subcommand was not processed. The DSN command processor issues a return code of 8. The DSN is ready for more input.

User Response: Resubmit the DCLGEN subcommand specifying a location name that does not exceed 16 characters.

**DSNE930E TABLE NAME OF table-name MUST BE
QUALIFIED WHEN SPECIFIED WITH
LOCATION OF location-name**

Explanation: DCLGEN detected an invalid TABLE keyword parameter. You must specify a qualified table name with the AT (location) keyword.

System Action: Your DCLGEN subcommand was not processed. The DSN command processor issues a return code of 8. DSN is ready for more input.

User Response: Specify a qualified table name and resubmit the DCLGEN command.

**DSNE931E csect-name keyword-name
(parameter_value) CONTAINS AN
INVALID SYMBOL (symbol)**

Explanation: An invalid 'symbol' (symbol) was specified in the 'parameter_value' associated with the specified 'keyword-name'.

Severity: 8

System Action: Subcommand processing is terminated. The TSO attachment facility is ready for more input.

User Response: Correct the keyword 'parameter_value' in error, and resubmit the job.

**DSNE932I WARNING, ONLY IBM SUPPLIED
names SHOULD BEGIN WITH DSN**

Explanation: The user has issued a BIND, REBIND, or FREE subcommand, using a name or id that begins with DSN.

System Action: Processing continues.

User Response: In the future, do not use plan-names, collection-ids, or package -ids that begin with DSN. It would be a good idea to FREE the plan or package you just created and to BIND again with a new plan-name, collection-id, or package-id.

**DSNE935I ... IS THE DCLGEN COMMAND THAT
MADE THE FOLLOWING STATEMENTS**

Explanation: This message is a part of normal DCLGEN output. It identifies the DCLGEN command that produced the declaration of which it is a part.

System Action: This message is included in the DCLGEN output.

**DSNE936I THE NUMBER OF COLUMNS
DESCRIBED BY THIS DECLARATION
IS nnn**

Explanation: This message is a part of normal DCLGEN output. It tells how many columns were in the table that was named in the DCLGEN command.

System Action: This message is included in the DCLGEN output.

**DSNE937I COBOL DECLARATION FOR TABLE
table-name**

Explanation: This message is a part of normal DCLGEN output. It tells the name of the table for which the declaration was created.

System Action: This message is included in the DCLGEN output.

DSNE938I **PLI DECLARATION FOR TABLE**
table-name

Explanation: This message is a part of normal DCLGEN output. It tells the name of the table for which the declaration was created.

System Action: This message is included in the DCLGEN output.

DSNE939E *csect-name* **THE COMBINATION**
ACQUIRE(ALLOCATE) AND
RELEASE(COMMIT) IS NOT ALLOWED

Explanation: The BIND or REBIND subcommand was submitted with conflicting parameters. You cannot specify ACQUIRE(ALLOCATE) and RELEASE(COMMIT) on the same subcommand.

System Action: The subcommand is terminated and the DSN command processor reissues the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *DB2 Command Reference* for additional information about the BIND and REBIND subcommands.

DSNE940E **DEFER(PREPARE) INVALID WITH**
NODEFER(PREPARE)

Explanation: The BIND or REBIND subcommand was submitted with conflicting parameters. You cannot specify DEFER(PREPARE) and NODEFER(PREPARE) on the same subcommand because these actions conflict.

System Action: The subcommand is terminated and the DSN command processor reissues the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *DB2 Command Reference* for additional information regarding the BIND and REBIND subcommands.

DSNE941I **DSNBIND IS A RESERVED PLAN NAME**

Explanation: This message is generated when the plan name is 'DSNBIND' in a BIND statement.

System Action: Subcommand processing is terminated. The TSO attachment facility is ready for more input.

User Response: Change the plan-name and resubmit the job.

DSNE942E *csect-name* **REMOTE CONNECTION**
NAME (parameter_value) HAS INVALID
FORMAT

Explanation: The REMOTE connection name 'parameter_value' contains a < or > character in the

starting or ending position of the parameter, but the parameter value is not bracketed by both characters. This message is also generated if the first character of the connection name is not an alphabetic character.

If the LU name format of the REMOTE keyword is to be used, the name must be specified as <LU_name>.

Severity: 8

System Action: Subcommand processing is terminated. DSN command processor reissues the DSN prompt to allow another subcommand to be entered.

User Response: Correct the keyword 'parameter_value' in error, and resubmit the job. Refer to *DB2 Command Reference* for additional information about the specification of connection names for the REMOTE keyword.

DSNE943E *csect-name* **REMOTE CONNECTION**
NAME (parameter_value) CANNOT
EXCEED (length_value) CHARACTERS
IN LENGTH

Explanation: The REMOTE connection name 'parameter_value' specified is greater than the length 'length_value' permitted for the REMOTE keyword.

This message is issued if the REMOTE location name format exceeds 16 characters, or the LU name format (<LU name>) exceeds 10 characters in length.

Severity: 8

System Action: Subcommand processing is terminated. DSN command processor reissues the DSN prompt to allow another subcommand to be entered.

User Response: Correct the keyword 'parameter_value' in error and resubmit the job. Refer to *DB2 Command Reference* for additional information about the specification of connection names for the REMOTE keyword.

DSNE944I **WARNING, BECAUSE YOUR TABLE OR**
COLUMN NAMES CONTAIN LOWER
CASE OR NON-ALPHABETIC
CHARACTERS, YOU WILL NEED TO
USE THE SQL (NOT PL/I) INCLUDE
STATEMENT TO INCLUDE DCLGEN
OUTPUT INTO YOUR PROGRAM

Explanation: DCLGEN had to wrap your table or column name(s) in quotes so DB2 could process them. Quotes are not recognized by the PL/I compiler. To avoid compilation errors, use the SQL INCLUDE statement ('EXEC SQL INCLUDE membername') to merge the DCLGEN output with your source program.

Refer to Chapter 5 of *DB2 SQL Reference* for more information about the SQL INCLUDE statement.

System Action: DCLGEN processing continues.

User Response: If you have not coded the SQL

INCLUDE, do so before the next compile.

DSNE947I QUOTE PARAMETER IS ONLY VALID WITH COBOL. IT HAS BEEN CHANGED TO APOST

Explanation: You specified the DCLGEN QUOTE parameter and a non-COBOL language parameter. This combination is not valid. The QUOTE parameter was specified as either a parameter on the DCLGEN subcommand or a default set for your site at DB2 installation time.

The DCLGEN processor changed the QUOTE setting (for this run) to APOST.

System Action: DCLGEN processing continues and should produce valid output.

User Response: If you used QUOTE on the DCLGEN command, you may want to change it to APOST before submitting it again.

DSNE948I *csect-id* FURTHER *subcommand* PROCESSING WILL NOT BE ATTEMPTED

Explanation: A DSN command processor subcommand (indicated in the message) has encountered an error which stopped DSN from processing this subcommand. The subcommand will not complete normally. This message is accompanied by other messages explaining the exact nature of the problem.

System Action: Subcommand processing terminates. The DSN prompt is reissued, indicating DSN is ready for another subcommand.

User Response: Read the accompanying messages for help in deciding what to do next.

DSNE949E COMMIT PROCESSING ABNORMAL TERMINATION, REASON CODE *reason_code*

Explanation: The DSN command processor has initiated a 'prepare to commit' request in DB2. The request is rejected when DB2 cannot commit the work performed

System Action: Commit processing is terminated.

User Response: Examine the reason code associated with this message, and respond as indicated before resubmitting the job.

Problem Determination: Reference the associated reason code to determine why the 'prepare to commit' was not successful.

DSNE950E DCLGEN DOES NOT SUPPORT THE *lang* LANGUAGE

Explanation: A DCLGEN user attempted to specify a LANGUAGE parameter, '*lang*', that DCLGEN does not support.

System Action: DCLGEN processing terminates.

User Response: Correct the LANGUAGE parameter and resubmit the DCLGEN subcommand.

DSNE952I C DECLARATION FOR TABLE *table-name*

Explanation: This message is a part of normal DCLGEN output. It tells the name of the table for which the declaration was created.

System Action: This message is included in the DCLGEN output.

DSNE953I *csect-name* PRECISION OF DECIMAL COLUMN *colname* EXCEEDS THE MAXIMUM PRECISION FOR THE *lang* LANGUAGE.

Explanation: DCLGEN was building a COBOL or PL/I language declaration for a table when it encountered a decimal column with a precision greater than the precision supported by the language.

System Action: DCLGEN set the return code to 4 and processed the rest of the table.

User Response: This is a warning. Be aware that the declaration for column '*colname*' causes a compiler error. You must edit the declaration before including it in an application program.

DSNE954I *csect-name* USE OF THE DCLGEN COLSUFFIX(YES) OPTION WILL RESULT IN A MIXED FIELD NAME FOR COLUMN *colname*. THE *lang* LANGUAGE DOES NOT SUPPORT MIXED FIELD NAMES.

Explanation: The COLSUFFIX(YES) option and a double-byte NAMES prefix were specified in a DCLGEN invocation, but column '*colname*' contains single-byte characters. This combination would result in a generated field name with a mixture of double-byte and single-byte characters, but the '*lang*' language does not support mixed field names.

System Action: DCLGEN set the return code to 4 and generated the field name as requested.

User Response: This is a warning. Be aware that the declaration for column '*colname*' causes a compiler error. You must edit the declaration before including it in an application program.

DSNE955I *csect-name* COLSUFFIX(YES) WAS SPECIFIED WITHOUT A NAMES PREFIX. COLUMN NAMES WILL BE USED FOR FIELD NAMES

Explanation: When COLSUFFIX(YES) is specified in a DCLGEN invocation, DCLGEN generates field names by concatenating the NAMES prefix with the column names. However, no NAMES prefix was specified.

System Action: DCLGEN set the return code to 4 and used the column names as field names.

User Response: This is a warning. Specify a NAMES prefix when you specify COLSUFFIX(YES).

DSNE956A A FIELD NAME PREFIX MUST BE SPECIFIED WHEN COLUMN SUFFIX VALUE IS YES.

Explanation: When YES is specified for the COLUMN SUFFIX field on the DCLGEN panel, DCLGEN generates field names by concatenating the value in the FIELD NAME PREFIX field with the column names. However, no value was specified for FIELD NAME PREFIX.

System Action: The DCLGEN panel generated this error message.

User Response: Specify a FIELD NAME PREFIX value, or change the COLUMN SUFFIX value to NO.

DSNE960E PARAMETER STRING EXCEEDS ALLOWABLE LIMIT OF 100 (DECIMAL) CHARACTERS

Explanation: The PARMs option parameter-string of the RUN subcommand cannot exceed 100 (decimal) characters in length.

System Action: The TSO attachment facility is ready for more input.

User Response: Correct the PARMs option and resubmit the job.

DSNE964E *csect-name* INVALID SYNTAX FOR *keyword* KEYWORD PARAMETER *parameter*

Explanation: A parameter that does not follow DB2 naming conventions was specified for *keyword*.

System Action: Subcommand processing is terminated. The DSN command processor reissues the DSN prompt to allow you to enter another subcommand.

User Response: Correct the keyword parameter value in error, and resubmit the command. Refer to *DB2 Command Reference* for additional information about the specification of a package name and the

REBIND/BIND PACKAGE/PLAN or FREE PACKAGE subcommand.

DSNE965E *parameter_value* IS NOT A VALID *keyword* KEYWORD PARAMETER

Explanation: The *parameter_value* is not a valid parameter value for the keyword.

System Action: Subcommand processing terminates. The DSN command processor reissues the DSN prompt to allow you to enter another subcommand.

User Response: Enter the corrected subcommand. Refer to *DB2 Command Reference* for additional information about the parameter values supported on the keyword.

DSNE966E *connection_type* KEYWORD OMITTED FROM THE ENABLE|DISABLE DECLARATION

Explanation: The 'connection_type' keyword was not specified in either the ENABLE or DISABLE keywords and is required if connection-names are specified for the 'connection_type'.

Severity: 8

System Action: Subcommand processing is terminated. DSN command processor reissues the DSN prompt to allow you to enter another subcommand.

User Response: Enter the corrected subcommand. Refer to *DB2 Command Reference* for additional information about the connection type parameter values supported on the ENABLE and DISABLE keywords.

DSNE967E *keyword_name* KEYWORD CANNOT BE SPECIFIED MORE THAN ONCE PER RUN

Explanation: Either the BIND PACKAGE MEMBER or LIBRARY keywords specified more than one parameter value. Only one member or library name is permitted.

Severity: 8

System Action: Subcommand processing is terminated. DSN command processor will reissue the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *DB2 Command Reference* for additional information regarding the BIND PACKAGE and BIND PLAN subcommands.

DSNE969E *csect-name* *keyword1* IS MUTUALLY EXCLUSIVE WITH *keyword2*

Explanation: Both the PKLIST and NOPKLIST keywords, cannot be specified on one invocation of the REBIND PLAN subcommand. Both the ENABLE and

DISABLE keywords cannot be specified on one invocation of the BIND/REBIND PLAN/PACKAGE subcommand.

Severity: 8

System Action: Subcommand processing is terminated. DSN command processor will reissue the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *DB2 Command Reference* for additional information regarding the REBIND PLAN subcommand.

DSNE970E EITHER MEMBER OR PKLIST MUST BE SPECIFIED, BOTH ARE ALSO ALLOWED

Explanation: The BIND PLAN subcommand requires either the MEMBER or PKLIST keyword, and neither was specified. Either keyword or both may be specified.

Severity: 8

System Action: Subcommand processing is terminated. DSN command processor will reissue the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *DB2 Command Reference* for additional information regarding the BIND PLAN subcommand.

DSNE971E EITHER MEMBER OR COPY BUT NOT BOTH MUST BE SPECIFIED

Explanation: The BIND PACKAGE subcommand requires either the MEMBER or COPY keyword; both are not allowed on the same subcommand invocation.

Severity: 8

System Action: Subcommand processing is terminated and the DSN command processor will reissue the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *DB2 Command Reference* for additional information regarding the BIND PACKAGE subcommand.

DSNE974E csect-name keyword1 KEYWORD IS INVALID WITH keyword2 KEYWORD.

Explanation: The keyword2 should not be specified with keyword1.

System Action: Subcommand processing is terminated. The DSN command processor reissues the DSN prompt to allow another subcommand to be entered.

User Response: Modify one of the keywords on the command and resubmit the job. Refer to *DB2*

Command Reference for additional information about the BIND PACKAGE/PLAN subcommands.

DSNE975E csect-name keyword KEYWORD IS ONLY VALID WHEN COPY KEYWORD IS PRESENT

Explanation: A keyword was issued that may only be specified in conjunction with the COPY keyword.

keyword
COPYVER or OPTIONS

Severity: 8

System Action: Subcommand processing is terminated. The DSN command processor will reissue the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *DB2 Command Reference* for additional information regarding the BIND PACKAGE subcommand.

DSNE976E LIBRARY KEYWORD IS ONLY VALID WHEN MEMBER KEYWORD IS PRESENT

Explanation: The LIBRARY keyword may only be specified in conjunction with the MEMBER keyword.

Severity: 8

System Action: Subcommand processing is terminated. The DSN command processor will reissue the DSN prompt to allow another subcommand to be entered.

User Response: Enter the corrected subcommand. Refer to *DB2 Command Reference* for additional information regarding the BIND PACKAGE subcommand.

DSNE999 INVALID SQL RETURN CODE

Explanation: The number you selected is not a valid SQL return code.

This message is issued by panel: DSN4SRC

User Response: Check the number and enter it again.

Chapter 7. DSNF... messages

**DSNF001I MESSAGE GENERATOR
INITIALIZATION PARAMETERS NOT
FOUND. DEFAULTS ASSUMED**

Explanation: The message generator was unable to access the routing code initialization parameter defined by the DSN6SYSP macro. Default values defined by that macro are assumed.

System Action: Subsystem initialization continues.

Operator Response: Notify the system programmer.

System Programmer Response: It might be necessary to change the DSN6SYSP macro and replace the DSN6SYSP member of the DSNIPARM directory. Refer to Part 2 of *DB2 Installation Guide* for details of this process.

**DSNF700I csect-name message-id HAS BEEN
ISSUED**

Explanation: An unsuccessful attempt has been made to issue the message 'message-id'. This message is issued only if the requested message could not be found in the DB2 message directory.

System Action: The system proceeds as though the requested message had been issued.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to this manual for actual message text. You need the message number ('message-id'). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Chapter 8. DSNQ... messages

DSNG001I EDM *stype* CAN NOT BE DECREASED BELOW THE VALUE *isize* SPECIFIED AT DB2 STARTUP

Explanation: The EDM *stype* storage cannot be decreased below the size that was specified at DB2 startup.

System Action: Processing continues.

DSNG002I EDM *stype* HAS AN INITIAL SIZE *isize*, REQUESTED SIZE *rsize*, AND AN ALLOCATED SIZE *asize*

Explanation: This message is issued in response to a request to increase or decrease the EDM *stype* storage.

isize The EDM *stype* storage size prior to the request for a change.

rsize The requested EDM *stype* storage size.

asize The EDM *stype* storage size immediately available.

- When increasing the EDM Pool, the *asize* is the storage available to satisfy the request.
- When decreasing the EDM Pool, the *asize* is the INITIAL size reduced by the amount that could be released immediately.

When the *asize* is larger than the *rsize*, the difference is marked to be released when it is no longer referenced.

System Action: Processing continues.

DSNG003I INSUFFICIENT VIRTUAL STORAGE TO EXPAND EDM *stype* STORAGE

Explanation: Insufficient virtual storage exists to expand the EDM *stype* storage as specified.

System Action: The EDM *stype* storage is expanded only to the size allowed by the available virtual storage.

DSNG005I DBD IS INCONSISTENT WITH THE CATALOG. UNABLE TO FIND A ROW IN SYSTABLES WITH DBID *dbid* AND OBID *obid*.

Explanation: This message is issued in response to a request to load a database with DBID *dbid*. This message is issued when the row is not found in SYSTABLES.

DBID DBID of the database that is being loaded.

OBID OBID of a table in the database.

Severity: 8 (Error)

System Action: DBD could not be loaded.

Operator Response: Based on *dbid* and *obid* from the message, verify that the row does not exist in the Catalog. REPAIR DBD TEST or DIAGNOSE can be run to gather more diagnostic information. Once you have determined that the Catalog contains the correct information, REPAIR DBD REBUILD can be run to rebuild the DBD.

DSNG006I DBD IS INCONSISTENT WITH THE CATALOG. UNABLE TO FIND A ROW IN SYSCOLUMNS WITH DBID *dbid*, OBID *obid*, AND COLUMN NUMBER *colno*.

Explanation: This message is issued in response to a request to load a database with DBID *dbid*. This message is issued when the row is not found in SYSCOLUMNS.

DBID DBID of the database that is being loaded.

OBID OBID of a table in the database.

COLNO

Column number in the table.

Severity: 8 (Error)

System Action: DBD could not be loaded.

Operator Response: Based on *dbid/obid/colno* from the message, verify that the row does not exist in the Catalog. REPAIR DBD TEST or DIAGNOSE can be run to gather more diagnostic information. Once you have determined that the Catalog contains the correct information, REPAIR DBD REBUILD can be run to rebuild the DBD.

Chapter 9. DSNH... Messages

Message line numbers

The line number *nnnn* in the following compiler messages is generated by assigning sequential numbers to the original source. The numbers are printed on the SQL precompiler source listing (if the SOURCE option is specified to the precompiler).

'COL *cc*' in the messages identifies the source column in which the condition was detected. This is usually the location of the column containing the first character of the associated source token. However, if the precompiler cannot determine this location, it is the beginning of the statement. Because the detected error might be similar to a valid, but different, construction, the SQL parsing might indicate the wrong location for the error.

Message severity codes

One of the characters I, W, E, S, or U is shown at the beginning of each precompiler message as an aid to the programmer. These characters indicate the severity level as follows:

I	0	Informational
W	4	Warning
E	8	Error
S	12	Severe error
U	16	Unrecoverable error

When unsupported non-DB2 statements are detected during SQL(ALL) precompilation, the return code will be forced to 4 if the return code was 8, and no host-related errors were detected. This is done so that the application can proceed with the compilation and link-edit steps. This allows the syntax checking to be delayed until bind. If a severity 8 precompiler error message is not a host-related error, the precompiler treats the error as a warning and place a W instead of an E in the precompiler output listing. In this instance, the precompiler also issues DSNH049I to indicate that the actual return code 8 from the precompiler was changed to 4.

The following precompiler messages with severity levels of 8 are not changed from errors to warnings when SQL(ALL) is in effect:

DSNH051I
DSNH080I
DSNH290I
DSNH291I
DSNH292I
DSNH312I
DSNH313I
DSNH314I
DSNH504I

Source tokens in messages

Tokens from your source program do not always appear in messages exactly as they appear in your program. For example, leading zeros are removed from integer tokens.

DSNH003I **S** *csectname* **FILE** *ddname*
PARAMETERS INCORRECT

Explanation: The file *ddname* has invalid or incorrect parameters, such as logical record length.

Severity: 12 (severe error)

System Action: The precompiler is terminated.

User Response: Correct the data set or library parameters.

DSNH004I **S** *csectname type* **COULD NOT BE FOUND**

Explanation: The precompiler could not find the indicated type of statement in the application program source. This message is only issued for HOST(COBOL) and HOST(COB2). The *type* is DATA DIVISION, WORKING-STORAGE SECTION, or PROCEDURE DIVISION. This error can cause other errors.

Severity: 12 (severe error)

System Action: Processing continues. Additional errors might result.

User Response: Ensure that the host language statement in your application program is correct and that the statement is present within the proper margins.

DSNH005I **U** *csectname* **FILE** *ddname* **NO MEMBER NAME SPECIFIED**

Explanation: The *ddname* must refer to a partitioned data set, and the member name must be specified in the allocation. This helps to prevent accidental erasure of the DBRM library.

Severity: 16 (unrecoverable error)

System Action: The precompiler is terminated.

User Response: Correct the JCL or TSO allocate command to specify a member name.

DSNH006I **U** *csectname* **FILE** *ddname* **COULD NOT BE OPENED**

Explanation: The file identified in the message is required, but it could not be opened.

Severity: 16 (unrecoverable error)

System Action: The precompiler is terminated.

User Response: Ensure that the file is present in your JCL.

System Programmer Response: Ensure that the SYSIN data is provided. Also ensure that SYSLIB is defined if the application program contains SQL INCLUDE statements.

DSNH007I **E** *csectname* **LINE** *nnnn* **COL** *cc*
ILLEGAL CHARACTER IGNORED: 'c'
('hh'X)

Explanation: The character identified in the message as *c* is not permitted. The hexadecimal representation for the character is *hh*.

Severity: 8 (error)

System Action: The character is ignored.

User Response: Correct the character. It might need to be within quotation marks or apostrophes.

DSNH008I **S** *csectname* **LINE** *nnnn* **COL** *cc*
NESTED INCLUDE NOT SUPPORTED

Explanation: While processing an INCLUDE, another nested INCLUDE statement was encountered.

Severity: 12 (severe error)

System Action: The nested INCLUDE statement is ignored.

User Response: Remove the nested INCLUDE statements; they are not allowed in an included file. The DB2 precompiler permits only one level of INCLUDE statements.

DSNH009I **S** *csectname* **LINE** *nnnn* **COL** *cc*
MEMBER *name* **COULD NOT BE INCLUDED**

Explanation: The identified member name was not found or could not be read.

Severity: 12 (severe error)

System Action: Processing continues without the data from that member.

User Response: Ensure that the member is in the library and that its name is spelled correctly. Check and correct any JCL errors. They are likely to cause other errors. Ensure that the data set and library parameters are correct.

DSNH010I S *csectname* LINE *nnnn* COL *cc*
**UNTERMINATED STRING CONSTANT
BEGINNING** *text*

Explanation: The constant identified in the message as *text* is not terminated properly.

Severity: 12 (severe error)

System Action: The string is treated as if it were terminated by the end of file.

User Response: Terminate the string constant. Check for and correct any missing or extra quotation marks and apostrophes. These errors are likely to cause others. Some statements were probably missed because of missing or extra string delimiters.

DSNH011I S *csectname* LINE *nnnn* COL *cc*
UNTERMINATED COMMENT

Explanation: A comment is not terminated properly. This message is only issued for HOST(PLI) and HOST(C).

Severity: 12 (severe error)

System Action: The string is treated as if it were terminated by the end of file.

User Response: Ensure that the comment terminator is typed properly and that it is within the specified margins. This error is likely to cause others. Some statements were probably missed because of the missing comment terminator.

DSNH012I W *csectname* LINE *nnnn* COL *cc*
INVALID CONTINUATION

Explanation: The continuation does not follow the host language rules.

Severity: 4 (warning)

System Action: Processing continues. Additional errors might result.

User Response: Follow the host language continuation rules and embedded SQL continuation rules. Check the margin option. This error is most common in assembler language in cases where a continuation begins before the continuation column (the continuation column is column 16 by default).

DSNH013I E *csectname* LINE *nnnn* COL *cc* SQL
**STATEMENT FOUND OTHER THAN IN
THE FIRST PROGRAM (OR MAIN
PROGRAM)**

Explanation: This message is for VS COBOL II only. If any SQL statement is found in the source after the first program in a BATCH COMPILE or the end of the main program of a nested program, this message is issued.

Severity: 8 (error)

System Action: The precompiler is terminated.

User Response: Move up the SQL statement and corresponding host variable declaration to the main program or to the first program and resubmit the job.

DSNH014I S *csectname* LINE *nnnn* COL *cc* SQL
**STATEMENT IS FOUND IN AN
INAPPROPRIATE PLACE**

Explanation: If any SQL statement is found in the COBOL DECLARATIVES section, this message is issued.

Severity: 12 (severe error)

System Action: Processing continues. Additional errors might result.

User Response: Move the SQL statement out of the COBOL DECLARATIVES section and resubmit the job.

DSNH016I E *csectname* LINE *nnnn* COL *cc* *token*
REQUIRED

Explanation: The required character or keyword identified as *token* is missing.

Severity: 8 (error)

System Action: The token is assumed to be present in order to continue checking the statement syntax.

User Response: Correct the SQL statement. Determine if you skipped either this keyword or another keyword earlier in the SQL statement. The assumed token is printed in the SYSTEM error message. This token might not be what you intended, even though it is the only symbol allowed in the clause at this point.

DSNH019I W *csectname* **OPTION: INVALID
OPTION** *option*

Explanation: The identified option was requested, but it is not a precompiler option.

Severity: 4 (warning)

System Action: The option is ignored.

User Response: Check the valid precompiler options to determine if your spelling is correct for this option. This problem might cause additional errors if the APOST, APOSTSQL, COMMA, HOST, MARGINS, QUOTESQL, or TWOPASS option is needed but not specified. The other options are either defaults or affect only the listing. Correct the problem and run the precompile again.

DSNH021I W *csectname* **OPTION: SUBOPTION
NOT PERMITTED WITH OPTION** *option*

Explanation: The identified option cannot have suboptions, but one or more were specified.

Severity: 4 (warning)

DSNH022I • DSNH029I

System Action: The suboptions are ignored.

User Response: None is required. However, you should remove the suboption.

DSNH022I W *csectname* **OPTION: UNMATCHED ')' TAKEN AS ','**

Explanation: An unmatched ending parenthesis was found before the end of the option string.

Severity: 4 (warning)

System Action: The parenthesis is assumed to be a comma.

User Response: Balance the parentheses.

DSNH023I W *csectname* **OPTION: SUBOPTION MISSING FOR OPTION** *option*

Explanation: The specified option requires a suboption, but one was not provided.

Severity: 4 (warning)

System Action: The option is ignored.

User Response: Provide a suboption or remove the option. This problem might cause additional errors if the HOST or MARGINS option is needed but not specified. The other options are either defaults or affect only the listing. Correct the problem and run the precompile again.

DSNH024I W *csectname* **OPTION: SUBOPTION** *suboption* **INVALID FOR OPTION** *option*

Explanation: The identified suboption is not allowed for the option specified.

Severity: 4 (warning)

System Action: The entire option is usually ignored.

User Response: Refer to the 'options used' list in the precompiler output listing to see if the option was used. Remove the suboption.

DSNH025I W *csectname* **OPTION: EXCESSIVE SUBOPTIONS FOR OPTION** *option*

Explanation: Too many suboptions were given for the identified option.

Severity: 4 (warning)

System Action: The excess suboptions are ignored.

User Response: Remove excess suboptions.

DSNH026I W *csectname* **OPTION: INVALID MARGINS FOR HOST LANGUAGE**

Explanation: The host language does not permit the specified margins.

Severity: 4 (warning)

System Action: The MARGINS option is ignored.

User Response: Ensure that the source statements are within the proper margins and that the margins are specified correctly. The margins for COBOL must be 8, 72. The margins for FORTRAN must be 1, 72.

DSNH027I W *csectname* **SUBOPTION** *suboption* **TOO LONG, TRUNCATED AFTER** *numofchar* **CHARS**

Explanation: The version ID is greater than *numofchar* bytes long. The maximum length for the version ID is 64 bytes.

Severity: 4 (warning)

System Action: The option is honored, but the version ID is truncated after 64 bytes.

User Response: Refer to the 'options used' list in the precompiler output to see what version ID was used.

DSNH028I W *csectname* **ATTACH SUBOPTION** *suboption* **NOT PERMITTED WITH HOST (FORTRAN) SPECIFIED.**

Explanation: The identified suboption for precompiler option ATTACH cannot take effect when the application is a FORTRAN application because the interface code for FORTRAN is always DSNHFT.

Severity: 4 (warning)

System Action: The option is ignored.

User Response: None is required. However, you can either code ATTACH(TSO) or specify no ATTACH precompiler option

DSNH029I E *csectname* **LINE** *nnnn* **COL** *cc* **INTO CLAUSE REQUIRED**

Explanation: SELECT statements embedded in an application program must have an INTO clause to denote where the results of the SELECT are to be placed. Dynamic SELECT statements do not permit the INTO clause.

Severity: 8 (error)

System Action: The statement is replaced by host language statements that, if executed, set an error code in the SQLCA.

User Response: Add the INTO clause to the SELECT statement, and precompile the application program again.

DSNH030I **W** *csectname* **LINE** *nnnn* **COL** *cc*
**STATEMENT CONTAINS WRONG
NUMBER OF 'INTO' VARIABLES**

Explanation: The number of variables specified in an INTO clause is not the same as the number of select-list elements (taking into account expansion of host structures and '*' or 'table.*' select entries according to the declarations supplied).

Severity: 4 (warning)

System Action: Processing continues.

User Response: Ensure the included table declarations are correct. If the declarations are correct, this statement causes an error when the application program is bound. If the declarations are incorrect, you can proceed, but the declarations should be corrected. Otherwise, you need to correct the SQL statement and precompile again.

DSNH031I **W** *csectname* **LINE** *nnnn* **COL** *cc*
**STATEMENT CREATES A COLUMN
WITH NAME** *name1* **WHICH DOES NOT
MATCH DECLARED NAME** *name2*

Explanation: The column name specified in a CREATE statement (*name1*) is not the same as the name of the corresponding column in the DECLARE TABLE statement (*name2*).

Severity: 4 (warning)

System Action: Processing continues.

User Response: Ensure that the DECLARE TABLE matches the CREATE TABLE. You can use the cross-reference and source listings to help find the two statements.

DSNH032I **W** *csectname* **LINE** *nnnn* **COL** *cc*
**STATEMENT CREATES A COLUMN
name WHOSE ATTRIBUTES DO NOT
MATCH THE DECLARATION**

Explanation: The column *name* is specified in a CREATE statement with a different data type or length than was specified for the corresponding column in the DECLARE TABLE statement.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Correct the DECLARE TABLE or CREATE TABLE statement. If the DECLARE TABLE statement is incorrect, some warnings might also be incorrect or might not be generated when needed. If the CREATE TABLE statement is incorrect, you must correct it.

DSNH033I **W** *csectname* **LINE** *nnnn* **COL** *cc*
**STATEMENT CREATES MORE OR
LESS COLUMNS THAN WERE
DECLARED**

Explanation: The number of columns specified in a CREATE statement is different from the number of columns specified in the DECLARE TABLE statement.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Ensure that the DECLARE TABLE matches the CREATE TABLE. If the DECLARE TABLE statement is incorrect, some warnings might also be incorrect or might not be generated when needed. If the CREATE TABLE statement is incorrect, you must correct it.

DSNH034I **W** *csectname* **LINE** *nnnn* **COL** *cc*
**STATEMENT INSERTS MORE OR LESS
VALUES THAN THE NUMBER OF
COLUMNS DECLARED**

Explanation: The number of values specified in an INSERT statement is different from the number of columns specified in the DECLARE TABLE statement for the receiving table.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Insert the correct number of values. If the DECLARE TABLE statement is incorrect, this warning might also be incorrect. If the INSERT statement is incorrect, you must correct it.

DSNH038I **S** *csectname* **LINE** *nnnn* **COL** *cc*
**PROGRAM OR SUBPROGRAM
CONTAINS MORE THAN 32767 SQL
STATEMENTS**

Explanation: The number of SQL statements in an application program or a FORTRAN subprogram is greater than 32767.

Severity: 12 (severe error)

System Action: The precompiler terminates.

User Response: Divide the application program or subprogram into smaller programs or reduce the SQL statements in each program unit so that the maximum number of SQL statements is not exceeded.

DSNH041I **W** *csectname* **OPTION: MISSING HOST
OPTION**

Explanation: The host language was not specified in the OPTION field.

Severity: 4 (warning)

System Action: HOST(COBOL) is assumed.

User Response: Specify the host language if it is not COBOL. It is probably best to specify the host language and remove all warnings.

DSNH042I W csectname OPTION: option OPTION INVALID FOR HOST LANGUAGE

Explanation: The option identified in the message is not valid. The QUOTE and COMMA options are not permitted with HOST(ASM), HOST(PLI), or HOST(C). The TWOPASS option is not permitted with HOST(COBOL).

Severity: 4 (warning)

System Action: The specified option is ignored.

User Response: Remove the invalid option, or correct the host specification.

DSNH049I W csectname RETURN CODE IS FORCED TO 4 BECAUSE OPTION SQL(ALL) IS IN EFFECT, ORIGINAL RETURN CODE WAS nnn

Explanation: One or more SQL-related error messages were detected by the precompiler, but because of option SQL(ALL), the return code is forced to 4 in order to let the application proceed with compilation.

The SQL syntax checking is deferred until bind time because the source might contain non-DB2 SQL syntax that the DB2 precompiler does not recognize and flags as an error. The DBRM produced by this precompilation cannot be bound successfully by DB2 if there are SQL syntax errors or non-DB2 SQL syntax.

The return code remains untouched if there are host-related syntax or semantic errors in the source.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Ensure that the intention of this precompilation is for executing it in a non-DB2 system.

DSNH050I I csectname WARNINGS HAVE BEEN SUPPRESSED DUE TO LACK OF TABLE DECLARATIONS

Explanation: One or more warning messages were suppressed because no table declarations were found before the first SQL statement that referenced a table or column.

Severity: 0

System Action: Processing continues. Suppression is discontinued if a table declaration is found.

User Response: Insert (or INCLUDE) table declarations before they are referenced in order to permit table and column checking.

DSNH051I E csectname LINE nnnn COL cc sqltype name PREVIOUSLY DECLARED OR REFERENCED

Explanation: The variable *sqltype* is TABLE, CURSOR, or STATEMENT. The identifier *name* was already defined with the given *sqltype*. The definition might have occurred implicitly. For example, *name* might have been found in the FROM clause of a SELECT, causing it to be defined as a table.

Severity: 8 (error)

System Action: The name is installed in the symbol table as a duplicate.

User Response: Remove duplicate definitions, or correct the references. Avoid implicit definitions by inserting (or including) table declarations before they are referenced. Check the number of passes used. Use the cross-reference and source listings to help resolve this type of error.

DSNH052I E csectname LINE nnnn COL cc COLUMN name IS ALREADY DEFINED IN TABLE table-name

Explanation: The identified name is already defined as a column in the table named *table-name*. The definition might have occurred implicitly. For example, *table-name* might have been found in a select-list, causing *name* to be defined as a column within *table-name* if *table-name* was not declared as a host variable.

Severity: 8 (error)

System Action: The name is installed in the symbol table as a duplicate.

User Response: Remove duplicate definitions, or correct the references. Avoid implicit definitions by inserting (or including) table declarations before they are referenced.

DSNH053I W csectname NO SQL STATEMENTS WERE FOUND

Explanation: No SQL statements were found in the precompiler input file. An empty DBRM member was written.

Severity: 4 (warning)

System Action: Processing continues.

User Response: If you embedded SQL statements in your application program and none were found, make sure your column margins are properly defined for your application program.

DSNH060I E *csectname* LINE *nnnn* COL *cc*
INVALID *type* SPECIFICATION: *spec*

Explanation: The *type* is either SCALE or LENGTH. The *spec* is the given SCALE or LENGTH specification in an SQL declaration. Length and scale specifications must be unsigned integers. The scale specification, where permitted, cannot exceed the length. The length specification cannot be 0.

Severity: 8 (error)

System Action: Processing continues.

User Response: Correct the length or scaling.

DSNH080I E *csectname* LINE *nnnn* COL *cc* *usage*
VARIABLE *name* IS NOT *type* TYPE

Explanation: The *usage* is INDICATOR or STRING. The *type* is SMALLINT, VARCHAR, or CHARACTER. The data type of the variable *name* is not acceptable. All indicator variables must be small integers. PREPARE and EXECUTE strings must be variable character strings, except for FORTRAN, which requires character type.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Specify a host variable of the proper type.

DSNH081I W *csectname* LINE *nnnn* COL *cc*
STATEMENT DOES NOT CONFORM TO
ANS SYNTAX STANDARD - REASON
CODE *ccc*

Explanation: When the precompiler option STDSQL(YES) is in effect, the SQL syntax is checked to see if it conforms to the ANSI/ISO SQL standard of 1992. Reason codes are:

- 000** Aggregate function with DISTINCT as an arithmetic-operation operand does not conform to the ANSI/ISO SQL standard of 1992.
- 001** FOR UPDATE OF as part of a DECLARE CURSOR statement does not conform to the ANSI/ISO SQL standard of 1992.

Severity: 4 (warning)

System Action: Processing continues.

User Response: You have the option of changing or not changing the syntax to conform to the ANS syntax standard.

System Programmer Response: Check the SQL statement.

DSNH082I I *csectname* LINE *nnnn* COL *cc*
STATEMENT DOES NOT CONFORM TO
IBM SQL SYNTAX OR SEMANTIC
STANDARD - REASON CODE *ccc*

Explanation: When the precompiler option SQL(ALL) is in effect, statements that do not conform to certain IBM SQL rules are flagged.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Change the syntax of the statement to conform to the IBM SQL standard if portability is required. Not changing the syntax means that the program is less portable within the IBM SQL environment.

DSNH083I I *csectname* LINE *nnnn* COL *cc* IBM SQL
RESERVED WORD *ibmkeywd*
SPECIFIED AS AN IDENTIFIER NAME

Explanation: When the precompiler option SQL(ALL) is in effect, IBM SQL reserved words should not be used as identifier names. Using IBM SQL reserved words limits the portability of the statement.

Severity: 0 (informational)

System Action: Processing continues.

User Response: If possible, change the identifier name to a non-IBM SQL reserved word so that the statement conforms to the IBM SQL standard. Not changing the identifier name means that the program is less portable within the IBM SQL environment.

DSNH084I W *csectname* LINE *nnnn* COL *cc*
UNACCEPTABLE SQL STATEMENT

Explanation: The referenced SQL statement is not allowed in this situation, but it will not cause an error. Depending on the option specified at precompile time, one of the following occurred.

- The BEGIN DECLARE SECTION(*), END DECLARE SECTION(*), and UPDATE STATISTICS statements are flagged as not compatible.
 - * For C applications, BEGIN and END DECLARE SECTION are not flagged.
 - * For other languages, the statement is only allowed with precompiler option STDSQL(YES).
- Using the STDSQL(YES) precompiler option, the INCLUDE SQLCA statement is flagged as a warning.

Severity: 4 (warning)

System Action: The BEGIN DECLARE SECTION, END DECLARE SECTION, and INCLUDE SQLCA statements are ignored. The other statements are replaced by host language statements that will, if executed, set a warning code or SQLCODE -84 in the SQLCA.

DSNH085I • DSNH102I

User Response: Unless this application program is used in a portable manner, remove the statement.

DSNH085I W *csectname* LINE *nnnn* COL *cc*
UNACCEPTABLE SQL KEYWORD
IGNORED: *keyword*

Explanation: The SQL *keyword* is not allowed by DB2, but it does not cause an error. This message is printed as a warning to the programmer.

Severity: 4 (warning)

System Action: The keyword and its parameters are ignored.

User Response: Unless this application program is used with both SQL/DS and DB2, remove the keyword.

DSNH088I W *csectname* LINE *nnnn* COL *cc* THIS
STATEMENT WILL *action* AN ENTIRE
TABLE

Explanation: The *action* is either DELETE or UPDATE. The referenced SQL statement has no WHERE clause and will delete or update all rows of the specified table. This message is printed as a warning to the programmer.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Be sure that you intend to delete or update all rows, or add a suitable WHERE clause.

DSNH090I S *csectname* LINE *nnnn* COL *cc* HOST
VARIABLE NOT PERMITTED HERE:
name

Explanation: Host variable references are not permitted in this type of SQL statement. The *name* is invalid.

Severity: 12 (severe error)

System Action: The statement is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Specify a literal or a column name rather than a host variable. The colon (:) indicates that the name that follows is a host variable. Remove it to specify a column name.

DSNH091I I *csectname* LINE *nnnn* COL *cc* EBCDIC
CCSID used for string-expression.

Explanation: In a PL/1 application program, a string-expression was specified for a PREPARE or EXECUTE IMMEDIATE statement, and the precompiler-generated structures for this string-expression specify an EBCDIC CCSID.

Severity: 0 (informational)

System Action: Processing continues.

User Response: If you intended that the string-expression should be treated as a string expression, then no action is required.

If the string-expression consists of just one host variable, and you intended that the string-expression should be treated as a host variable, then the host variable must be preceded by a colon, and at least one DECLARE VARIABLE statement must be contained in your program source.

If you add a DECLARE VARIABLE for any host variable in your program source, and re-compile your application, the variable previously treated as a string-expression by the precompiler will be treated as a host variable and this message will not be issued.

DSNH097I E *csectname* LINE *nnnn* COL *cc*. THE
USE OF LONG VARCHAR OR LONG
VARGRAPHIC IS NOT ALLOWED IN
THIS CONTEXT.

Explanation: The statement attempted to use the LONG VARCHAR or LONG VARGRAPHIC syntax. This syntax cannot be used for the following statements:

- CAST syntax
- CREATE DISTINCT TYPE
- CREATE FUNCTION
- CREATE PROCEDURE
- ALTER FUNCTION
- COMMENT ON FUNCTION
- GRANT EXECUTE ON FUNCTION
- REVOKE EXECUTE ON FUNCTION

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Correct and reissue the failing statement.

DSNH101I S *csectname* THE STATEMENT IS TOO
LONG OR TOO COMPLEX.

Explanation: The statement cannot be executed because it exceeds the system limits for either length or complexity.

Severity: 16

System Action: The statement cannot be executed.

User Response: Break the statement into shorter or less complex SQL statements.

DSNH102I E *csectname* LINE *nnnn* COL *cc*
LITERAL STRING IS TOO LONG.
STRING BEGINS *string*

Explanation: The character string constant that was referenced in this message is too long. The erroneous string begins with *string*. Most strings have these limits:

- For a hexadecimal constant (X, GX, or UX), the number of hexadecimal digits must not exceed 32704.
- Any other character string constant must be short enough so that its UTF-8 representation requires no more than 32704 bytes.
- Any other graphic string constant must be short enough so that its UTF-8 representation requires no more than 32698 bytes.

In some contexts, however, the limit is smaller; see the *DB2 SQL Reference* for the specific cases.

If this release of DB2 increases the maximum allowed length of a string constant, then an attempt to exploit the new length when the value of the NEWFUN option is NO (New Function Mode is NO) will produce this message.

For special registers, the allowable length depends on the particular special register. A string that exceeds the limit can be specified only through assignment from a host variable. If this release of DB2 increases the maximum allowed length of a string constant, then an attempt to exploit the new length before using the New Function Mode produces this SQL return code.

Two consecutive string delimiters are used to represent one string delimiter within the character string, but these count as 2 bytes when calculating the lengths of character string constants.

Severity: 8 (error)

System Action: If the SQL statement containing the string is a declaration, it is discarded. If the SQL statement containing the string is executable, it is replaced by host language statements that, if executed, set an error code in the SQLCA.

User Response: Correct the string. If a shorter string is acceptable, reduce the length of the string constant. If a long string is required, a host variable is required.

DSNH103I E *csectname* LINE *nnnn* COL *cc*
INVALID NUMERIC LITERAL *token*

Explanation: The *token* was found. It begins with a digit, but it is not a valid integer, decimal, or float literal. Identifiers cannot begin with a digit except for the WHENEVER statement with HOST(FORTRAN), and the identifiers in COBOL.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Check the indicated token for validity. Use apostrophes or quotation marks if a character literal

is desired. Remove the invalid characters if a number is desired.

DSNH104I E *csectname* LINE *nnnn* COL *cc*
ILLEGAL SYMBOL "*token*". SOME
SYMBOLS THAT MIGHT BE LEGAL
ARE: *token-list*

Explanation: A syntax error was detected where the symbol "*token*" occurs in the SQL statement. The list of symbols that might be legal shows some alternate symbols that could possibly be correct at that point, if the preceding part of the statement is entirely correct.

However, the preceding part of the statement might be incorrect. For example, if an important keyword is omitted, DB2 detects the error later, and not always immediately after the point where the keyword should appear. The list of alternate symbols are only suggestions.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the statement and precompile the program again.

DSNH105I E *csectname* LINE *nnnn* COL *cc*,
INVALID STRING CONSTANTS

Explanation: Incorrect graphic or mixed data literals were found on line *nnnn*, column *cc*.

Severity: 8 (error)

System Action: The literal is ignored and the SQL statement containing the problem is discarded.

User Response: Specify the correct format of literals.

System Programmer Response: Check for a quote, an apostrophe, shift-out (so) or shift-in (si) characters, G or N characters, or the number of characters within the literal.

DSNH107I E *csectname* LINE *nnnn* COL *cc* NAME
name IS TOO LONG; MAXIMUM IS *size*
CHARACTERS

Explanation: For each type of *name*, the *DB2 SQL Reference* lists the maximum allowed length.

If this release of DB2 increases the maximum allowed length of a name, then an attempt to exploit the new length when the value of the NEWFUN option is NO will produce this message.

Severity: 8 (error)

System Action: If the SQL statement containing the problem is a declaration, it is discarded. If the SQL

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statement containing the problem is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the name length.

DSNH109I E *csectname* LINE *nnnn* COL *cc* *type* CLAUSE NOT PERMITTED

Explanation: The *type* is INTO, ORDER BY, FOR UPDATE, , USING, LARGE, or CORRELATION NAME.

- Embedded SELECT statements cannot include ORDER BY, because the result cannot be more than a single row.
- Embedded SELECT statements cannot include FOR UPDATE OF, because position is not retained.
- SELECT clauses used in cursor declarations or subselects cannot have an INTO clause because the INTO is on the FETCH statement.
- CREATE VIEW statements cannot include any of the above clauses.
- The UNION operator is not allowed in an embedded SELECT.
- A CREATE TABLESPACE statement cannot specify LOCKPART without the Numparts option.
- An ALTER TABLESPACE statement cannot specify LOCKPART for a non-partitioned table space.
- A table space with LOCKPART YES cannot be altered to LOCKSIZE TABLESPACE.
- A table space with LOCKSIZE TABLESPACE cannot be altered to LOCKPART YES.
- The LARGE clause without the Numparts option is not allowed in a CREATE TABLESPACE statement.
- DESCRIBE INPUT statement can not have USING clause.
- The table being updated in a POSITIONED UPDATE statement can not be assigned a correlation name.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Remove the clause. You might need to use a cursor to perform the processing. The ORDER and FOR UPDATE clauses are accepted on the DECLARE CURSOR statement. The INTO clause is accepted on the FETCH statement. The LARGE clause is accepted on a CREATE TABLESPACE statement with the Numparts option.

DSNH110I E *csectname* LINE *nnnn* COL *cc* INVALID HEX LITERAL BEGINNING *string*

Explanation: The hexadecimal string constant that was referenced contains one or more of the following errors:

- one or more characters are not valid hexadecimal digits
- the number of digits is not even
- for a UX or GX string constant, the number of digits is not a multiple of 4

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the string constant.

DSNH111W W *csectname* LINE *nnnn* COL *cc* THE SUBPAGES OPTION IS NOT SUPPORTED FOR TYPE 2 INDEXES

Explanation: You cannot use the SUBPAGES option for type 2 indexes.

Severity: 4 (warning)

System Action: The option is ignored; processing continues.

Programmer Response: Remove the SUBPAGES option to get rid of the warning.

DSNH113I E *csectname* LINE *nnnn* COL *cc* INVALID CHARACTER FOUND IN *string*, REASON CODE - *nnn*

Explanation: The string contains an invalid character. It can be an SQL ordinary identifier name, a host variable name, or a DBCS comment.

For SBCS SQL ordinary identifiers, names of buffer pools, databases, plans and storage groups must contain only uppercase alphabetic or national characters and numerics when CHARSET is KATAKANA; the first character must be alphabetic or national.

The following reason codes apply to SBCS identifiers:

- 000** An invalid character was found in the SBCS identifier (including the case in which a DBCS identifier was used where only an SBCS identifier is allowed). In some cases, the name of an SQL procedure may contain an underscore character. For more information, see the *DB2 SQL Reference*.

The following reason codes apply to DBCS identifiers or comments:

- 101** An odd number of bytes exists between the shift-out and the shift-in character.
- 102** Either a shift-in or shift-out character is missing.
- 103** DBCS blanks X'4040' are not allowed.
- 104** There are no characters between the shift-out and the shift-in characters.
- 105** Shift-out cannot be the first byte of the DBCS character between the shift-out and the shift-in characters.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Correct the name.

DSNH115I E *csectname* **LINE** *nnnn* **COL** *cc*
**ILLEGAL USE OF COMPARISON
 OPERATOR** *operator*

Explanation: The syntax is not correct for this type of comparison. A simple comparison such as '>' must not be followed by a list of items. The ANY and ALL comparisons must precede a subselect, rather than an expression or a list of items.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the syntax. If necessary, refer to Chapter 2 of *DB2 SQL Reference* for the correct syntax.

DSNH117I E *csectname* **LINE** *nnnn* **COL** *cc*
**STATEMENT INSERTS THE WRONG
 NUMBER OF VALUES**

Explanation: The number of entries in a value-list is not the same as the number of columns specified in an INSERT statement.

Severity: 8 (error)

System Action: Processing continues.

User Response: Correct the syntax. If necessary, refer to Chapter 5 of *DB2 SQL Reference* for the correct syntax.

DSNH120I E *csectname* **LINE** *nnnn* **COL** *cc*
FUNCTION USAGE NOT PERMITTED:
fname

Explanation: A WHERE clause or SET clause contains an aggregate function, possibly as a result of a reference to a column that is derived from an aggregate function in a view definition. An aggregate function is allowed in a WHERE clause only if that clause appears within a subquery of a HAVING clause.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the syntax. A subselect clause might be needed to produce the function result. If necessary, refer to Chapter 4 of *DB2 SQL Reference* for the correct syntax.

DSNH125I E *csectname* **LINE** *nnnn* **COL** *cc*
**INVALID ORDER BY COLUMN
 NUMBER:** *number*

Explanation: The identified column number is either less than 1 or greater than the number of items in the select-list.

Severity: 8 (error)

System Action: The cursor declaration is discarded.

User Response: Correct the column number. If necessary, refer to Chapter 4 of *DB2 SQL Reference* for the correct syntax.

DSNH126I E *csectname* **LINE** *nnnn* **COL** *cc* **ORDER
 BY CANNOT BE USED WITH A FOR
 UPDATE OF CLAUSE**

Explanation: The ORDER BY clause makes the cursor incapable of being updated.

Severity: 8 (error)

System Action: The cursor declaration is discarded.

User Response: This is a DB2 restriction. You can have either an ordered cursor or a cursor that can be updated. You cannot specify both attributes for the same cursor. You might need to change your application logic.

DSNH129I E *csectname* **LINE** *nnnn* **COL** *cc* **TOO
 MANY TABLES SPECIFIED IN SQL
 STATEMENT**

Explanation: In a subselect, (including all subqueries), there can be no more than 225 references to table names.

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Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Reduce the number of table references in each subselect. Each reference to a single table counts separately. The count only applies to table/view references in the FROM list. Each view is only counted one time. Refer to Chapter 4 of *DB2 SQL Reference* for the definition of a subselect.

DSNH130I E *csectname* LINE *nnnn* COL *cc* THE
ESCAPE CLAUSE 'x' CONSISTS OF
MORE THAN ONE CHARACTER

Explanation: The literal x used in the ESCAPE clause is too long. Only one SBCS or one DBCS character is allowed.

Severity: 8 (error)

System Action: The corresponding SQL statement is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the string. The literal string for the ESCAPE clause can only be one SBCS or DBCS character.

DSNH131I E *csectname* LINE *nnnn* STATEMENT
WITH LIKE PREDICATE HAS
INCOMPATIBLE DATA TYPES

Explanation: If the column name at the left of LIKE or NOT LIKE is a character type, the expression at the right must be a character type. If the column name is a graphic type, the expression at the right must be a graphic type.

Severity: 8 (error)

System Action: The statement is ignored.

User Response: Check the data type of every operand.

DSNH132I E *csectname* LINE *nnnn* COL *cc*
INVALID LIKE PREDICATE

Explanation: The value following LIKE must be an alphanumeric host variable or literal, graphic host variable or literal, or special character literal.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the syntax. If necessary,

refer to Chapter 2 of *DB2 SQL Reference* for the correct syntax.

DSNH142I E *csectname* LINE *nnnn* COL *cc* THE
SQL STATEMENT IS NOT SUPPORTED

Explanation: The *token* was found. An SQL statement was detected that is not supported by the database. The statement might be valid for other IBM relational database products or it might be valid in another context. For example, statements such as VALUES and SIGNAL SQLSTATE can appear only inside a trigger.

Severity: 8 (error)

System Action: The SQL statement is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Change the syntax of the SQL statement or remove the statement from the program.

DSNH170I E *csectname* LINE *nnnn* COL *cc*
NUMBER OF ARGUMENTS SPECIFIED
FOR *function-name* IS INVALID

Explanation: An SQL statement specified the scalar function *function-name* with either too many or too few arguments.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the function call. Refer to Chapter 3 of *DB2 SQL Reference* for information about the number of arguments required by the scalar function *function-name*.

DSNH171I E *csectname* LINE *nnnn* COL *cc* THE
DATA TYPE, LENGTH, OR VALUE OF
ARGUMENT *nn* OF *function-name* IS
INVALID

Explanation: Either the data type, the length or the value of argument *nn* of scalar function *function-name* is incorrect.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the argument. Refer to Chapter 3 of *DB2 SQL Reference* for rules for each argument of the scalar function *function-name*.

DSNH182I E *csectname* LINE *nnnn* COL *cc* AN
ARITHMETIC EXPRESSION WITH A
DATETIME VALUE IS INVALID

Explanation: The specified arithmetic expression contains an improperly used date/time value or labeled duration.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the indicated expression. Refer to Chapter 2 of *DB2 SQL Reference* for the rules for date/time arithmetic.

DSNH184I E *csectname* LINE *nnnn* COL *cc* AN
ARITHMETIC EXPRESSION WITH A
DATETIME VALUE CONTAINS A
PARAMETER MARKER

Explanation: The specified expression contains a parameter marker improperly used with a date/time value.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the indicated expression. Refer to Chapter 2 of *DB2 SQL Reference* for information about date/time arithmetic.

DSNH198I E *csectname* LINE *nnnn* COL *cc* EMPTY
SQL STATEMENT IGNORED

Explanation: The referenced SQL statement has no text between the EXEC SQL and the statement terminator.

Severity: 8 (error)

System Action: The statement is ignored.

User Response: Correct the statement, or remove it.

DSNH199I E *csectname* LINE *nnnn* COL *cc*
INVALID KEYWORD *keyword*; VALID
SYMBOLS ARE: *token list*

Explanation: A syntax error was detected at the keyword specified in the message. As an aid to the programmer, a partial list of valid tokens is provided in the message. Only those tokens that fit are listed. The error might be earlier in the statement, but the syntax of the statement appears to be valid up to this point.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Check the SQL statement in the area of the indicated keyword. A colon or SQL delimiters might be missing. Correct the SQL statement.

DSNH203I W *csectname* LINE *nnnn* COL *cc*
STATEMENT REFERENCES COLUMN
column name, WHICH IS DECLARED IN
MORE THAN ONE OF THE SPECIFIED
TABLES

Explanation: The column *column name* was referenced without sufficient qualification. Type checking cannot be done.

Severity: 4 (warning)

System Action: Processing continues.

User Response: If the table declares are correct and the column name is not unique, this creates an error in the BIND step. Correct the DECLARE TABLE statement, or use the correct table name to qualify the column name.

DSNH204I W *csectname* LINE *nnnn* COL *cc*
STATEMENT REFERENCES
UNDECLARED TABLE *table-name*

Explanation: The table definition was not provided. It is optional, but checking cannot be done without the table information. (BIND checks against the actual table during later processing.)

Severity: 4 (warning)

System Action: Processing continues.

DSNH205I W *csectname* LINE *nnnn* COL *cc*
COLUMN *column-name* WAS NOT
DECLARED IN TABLE *table-name*

Explanation: The column name *column-name* is not contained in the table declarations. The name specified in a DISTINCT function must reference a column of the table. The value expression of an ALL function must reference a column of the table.

Severity: 4 (warning)

System Action: Processing continues.

User Response: If the table declares are correct and the column name is not in the table, this creates an error in the BIND step. Correct the DECLARE TABLE statement or the column name.

DSNH206I **W** *csectname* **LINE** *nnnn* **COL** *cc*
STATEMENT REFERENCES COLUMN
column name **WHICH IS NOT**
DECLARED IN THE SPECIFIED
TABLE(S)

Explanation: The column *column name* is not contained in any TABLE declaration for the tables specified in the statement.

Severity: 4 (warning)

System Action: Processing continues.

User Response: If the table declares are correct and the column name is not in the tables, this creates an error in the BIND step. Correct the DECLARE TABLE statements or the column name.

System Programmer Response: Check the spelling of the column name. Ensure that all the tables needed were specified in the statement.

DSNH207I **E** *csectname* **LINE** *nnnn* **COL** *cc*
ILLEGAL ORDER BY SPECIFICATION

Explanation: If the select expression involves a UNION operator, the ORDER BY list must use numeric constants rather than variables.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the syntax. If necessary, refer to Chapter 4 of *DB2 SQL Reference* for the correct syntax.

DSNH251I **E** *csectname* **LINE** *nnnn* **COL** *cc* **TOKEN**
name **IS NOT VALID**

Explanation: The location name cannot contain alphabetic extenders for national languages (that is, #, @, and \$ in the United States).

Severity: 8 (error)

System Action: Processing continues.

User Response: Correct the content of the location name.

DSNH290I **E** *csectname* **LINE** *nnnn* **COL** *cc* **NO**
VALID 'END DECLARE SECTION'
FOUND

Explanation: The user's source program contains a BEGIN DECLARE SECTION, but no corresponding END DECLARE SECTION was found.

Severity: 8 (error)

System Action: Processing continues.

User Response: Check the application program and ensure that a valid END DECLARE SECTION statement is present.

DSNH291I **E** *csectname* **LINE** *nnnn* **COL** *cc* **NO**
VALID 'BEGIN DECLARE SECTION'
FOUND

Explanation: The user's source program contains an END DECLARE SECTION, but no corresponding BEGIN DECLARE SECTION was found.

Severity: 8 (error)

System Action: Processing continues.

User Response: Check the application program and ensure that a valid BEGIN DECLARE SECTION is present.

DSNH292I **E** *csectname* **LINE** *nnnn* **COL** *cc* **HOST**
NAME *name* **IS TOO LONG; MAXIMUM**
IS *size* **CHARACTERS**

Explanation: Fully qualified C host variable names cannot contain more than 256 characters.

Severity: 8 (error)

System Action: If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Reduce the length of names or the level of qualification of the host variable name in error.

DSNH303I **W** *csectname* **LINE** *nnnn* **COL** *cc*
STATEMENT SELECTS INCOMPATIBLE
DATA TYPE INTO *hostvar*

Explanation: The data type of host variable *hostvar* is not compatible with the apparent type of the corresponding select expression. One of them is numeric and the other is character, or one of them is character and the other is graphic. If the select expression is a column reference, the data type is obtained from its declaration.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Ensure that the table definitions are current and that the host variable has the proper data type.

System Programmer Response: Ensure that the table definitions are current, and that the host variable has the proper data type.

DSNH307I E *csectname* **HOST VARIABLE
ALREADY DECLARED**

Explanation: The host variable being registered with SQLGALHV has already been registered.

Severity: 8 (error)

System Action: The host variable is ignored.

User Response: Continue the compilation or precompilation process.

DSNH308I U *csectname* **MAXIMUM NUMBER OF
HOST VARIABLES EXCEEDED**

Explanation: The registration of host variables exceeded the internal symbol table storage capacity.

Severity: 16 (unrecoverable error)

System Action: Further processing halts.

User Response: Terminate compilation or precompilation.

DSNH310I W *csectname* **LINE nnnn COL cc
language HOST VARIABLE name WAS
DECLARED IN location**

Explanation: Host variable *name* should not be declared in this *location* of the source program. This message is issued only at reference time.

Severity: 4 (warning)

System Action: Processing continues.

User Response: If this host variable is used, the user assumes responsibility for possible exposure of incorrect output. Refer to Part 2 of *DB2 Application Programming and SQL Guide* to determine where host variables can be validly declared.

Declaring a COBOL host variable in the File Section might lead to incorrect output from SQL statements or abend 04E with RC=00E7000C.

DSNH312I E *csectname* **LINE nnnn COL cc
UNDEFINED OR UNUSABLE HOST
VARIABLE name**

Explanation: The *name* in the message is used in an SQL statement, but either no declaration was found in the application program so far, or the attributes are improper for this use. Declarations for host variables used in a DECLARE CURSOR statement must precede the SQL statement, regardless of the ONEPASS or TWOPASS option for the precompiler, or a parameter marker was expected in an EXECUTE IMMEDIATE statement. This message is issued only at reference time.

Severity: 8 (error)

System Action: If the containing SQL statement is a

declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Check the declaration and the attributes of the named host variable. If you intended the name to refer to a column, the colon (:) should not be present. If you intended a literal, you need to enclose the value in string delimiters (apostrophes or quotation marks).

If you intended to use a host variable, only a subset of the possible variable declarations are valid for use as a DB2 host variable. The rules for host variables are listed in the application programming guides. Use the cross-reference listing and precompiler source listing to determine the source of the problem.

- If you use the STDSQL(YES) option for the precompilation, make sure that all of the host variable declarations are declared within BEGIN/END DECLARE SECTIONS.
- If the cross-reference listing does not contain the host variable name, the declaration is missing. If the source for a declaration is present, a missing terminator from a comment or from a string might cause this type of error. The margins could also cause this type of error.
- If the name is present, but the data type is not listed, the host variable is not usable; it does not follow the rules outlined for valid host variable definitions.
- If several definitions exist for the name, the first reference might occur before the definition. The use of the TWOPASS option helps by processing DECLARE statements before the other types of statements. However, host variable declarations and cursor declarations are processed in the same pass. The host variables referenced in cursor declarations must be defined before the cursor is defined in the application program.
- A parameter marker is expected rather than a host variable in an EXECUTE IMMEDIATE statement.
- The data type of a host variable passed in a CALL statement is not character or varying character.
- The length attribute of a character or varying character host variable passed in a CALL statement exceeds 255 characters.

DSNH313I E *csectname* **LINE nnnn COL cc
INVALID TYPE OR LENGTH OF HOST
VARIABLE 'name'**

Explanation: The host variable *name* is used in an SQL statement, but either the type or the length is improper for this use.

Severity: 8 (error)

System Action: The corresponding SQL statement is replaced by host language statements that will, if executed, set an error code in the SQLCA.

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User Response: Check the declaration and the attributes of the named host variable. Refer to Part 2 of *DB2 Application Programming and SQL Guide* for the allowable host variable type and length.

DSNH314I E *csectname* LINE *nnnn* COL *cc*
REFERENCE TO HOST VARIABLE
name IS AMBIGUOUS

Explanation: The host variable *name* was defined more than once in this application program. The precompiler cannot distinguish which host variable definition should be used here. The following table indicates some possible combinations. DB2 supports only a single adjacent qualifier for a host variable name.

Case	Ref	Definition	Result	Suggested Change
1	a	x.a	Valid	None
2	x.a	x.a, y.a	Valid	None
3	a	x.a, y.a	DSNH314I	Reference x.a or y.a
4	a	x.a, a	Valid	None
5	x.a	q.x.a, v.x.a	DSNH314I	Variable name changes
6	a	a, a	DSNH314I	Variable name changes

Severity: 8 (error)

System Action: If the SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Make the host variable name unique or use qualification to indicate which host variable definition is to be used, as suggested in the above table.

DSNH330I E *csectname* LINE *nnnn* COL *cc* TEXT
COULD NOT BE CONVERTED TO
CCSID 1208, REASON *reason-code*,
CHARACTER *code-point*

Explanation: DB2 parses SQL statements in Unicode UTF-8, which is also known as CCSID 1208. DB2 will convert the application program internally (not externally) to UTF-8 for processing if an application program uses a different CCSID (for example, an EBCDIC CCSID).

Text from the application program could not be converted from the source CCSID to CCSID 1208. The reason code indicates the context of this error:

012 Invalid code point. An invalid character was sent to be converted as indicated by the code-point

016 Other invalid input character. For example, this could be a mismatch between shift-in and shift-out, or the absence of half of a DBCS character. The code-point is blank.

Severity: 8 (error)

System Action: The statement is discarded.

Programmer Response: If the reason code is 012, change the text in the application program to a valid code point. If the reason code is 016, change the text in the application program to conform to the rules for well-formed mixed data.

DSNH332I S *csectname* CHARACTER
CONVERSION FROM CCSID *from-ccsid*
TO CCSID 1208 IS NOT SUPPORTED,
REASON *reason-code*

Explanation: DB2 parses SQL statements in Unicode UTF-8, which is also known as CCSID 1208. DB2 will convert the application program internally (not externally) to UTF-8 for processing if an application program uses a different CCSID (for example, an EBCDIC CCSID). The source CCSID can be specified by the CCSID option.

This message indicates that conversion could not take place from the source CCSID to CCSID 1208. The reason code indicates the context of this error:

000 The value of the CCSID option is neither 65535, nor in the range 1 through 65533.

001 No conversion is defined from the source CCSID to CCSID 1208.

002 No conversion is defined from CCSID 1208 to the source CCSID.

Severity: 12 (severe error)

System Action: The precompiler is terminated.

User Response: Check that the value of the CCSID option is valid. Run the precompilation again with a valid CCSID if you do not want to use the EBCDIC system CCSID.

System Programmer Response: Make sure that the Unicode System Services conversion image includes the required conversions. See the V2R8.0-V2R10.0 *z/OS Support for Unicode: Using Conversion Services*.

DSNH350I E *csectname* LINE *nnnn* COL *cc*.
INVALID SPECIFICATION OF A LARGE
OBJECT COLUMN

Explanation: The ALTER TABLE, CREATE TABLE, or CREATE INDEX statement is invalid for one of the following reasons:

- A LOB column cannot be added to a temporary table.
- A LOB column cannot be added to a table defined with an EDITPROC.

- The *PRIMARY KEY* clause cannot specify a LOB column as a column of the primary key.
- The *UNIQUE* clause cannot specify a LOB column as a column of the unique key.
- The *referential-constraint* clause cannot specify a LOB column as a column of a foreign key.
- The CREATE INDEX statement cannot name a LOB column as a column of the index key.
- A LOB column cannot be specified in a *references* clause.
- A *table check constraint* cannot be specified in the definition of a LOB column.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Correct and reissue the failing statement.

DSNH372I E *csectname* LINE *nnnn* COL *cc*. **ONLY ONE COLUMN DEFINED AS ROWID IS ALLOWED IN A TABLE**

Explanation: An attempt was made to create a table with more than one ROWID column or to add a ROWID column to a table which already has one.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: For a CREATE TABLE statement, select only one column to have the row ID data type. For an ALTER TABLE statement, a ROWID column already exists for the table. Do not attempt to add another column with data type row ID to the table.

DSNH385I W *csectname* LINE *nnnn* COL *cc* **ASSIGNMENT TO AN SQLSTATE OR SQLCODE VARIABLE IN AN SQL PROCEDURE MAY BE OVER-WRITTEN AND DOES NOT ACTIVATE ANY HANDLER**

Explanation: The SQL procedure includes at least one statement that assigns a value to the SQLSTATE or SQLCODE special variables. Since DB2 assigns values to those variables to indicate the results of SQL statement execution, DB2 overwrites the values assigned by the SQL assignment statement.

An SQL procedure cannot activate a handler by assigning a value to SQLSTATE.

Severity: 4 (warning)

System Action: Processing continues.

User Response: To prevent this warning, do not assign values to the SQLCODE or SQLSTATE special variables.

DSNH401I W *csectname* LINE *nnnn* COL *cc* **STATEMENT SPECIFIES INCOMPATIBLE OPERANDS FOR COMPARISON OPERATOR** *name*

Explanation: The comparison operation *name* is used with a mixture of incompatible data type operands.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Make both operands compatible character data types. Ensure that the table declaration is correct.

DSNH402I W *csectname* LINE *nnnn* COL *cc* **STATEMENT APPLIES** *name* **TO CHARACTER DATA**

Explanation: The numeric operation or function *name* is used with a non-numeric operand.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Make the operand numeric or use a character function. Ensure that the table declaration is correct.

DSNH404I W *csectname* LINE *nnnn* COL *cc* **STATEMENT INSERTS OR UPDATES COLUMN** *name* **WITH VALUE THAT IS TOO LONG**

Explanation: An INSERT or UPDATE statement specifies a value that is longer than the maximum length string that can be stored in that column, according to the DECLARE TABLE statement.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Ensure that the length is allowed and that the table declaration is correct.

DSNH405I E *csectname* LINE *nnnn* COL *cc* **LITERAL** *number* **IS OUT OF RANGE**

Explanation: The number is not in the proper range:

- +5.4E-79 to 7.2E+75 for floating-point
- $-(10^{31} - 1)$ to $+(10^{31} - 1)$ for packed decimal
- -2147483648 to 2147483647 for integers

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the number.

DSNH408I W *csectname* LINE *nnnn* COL *cc*
**STATEMENT INSERTS OR UPDATES
 COLUMN *name* WITH INCOMPATIBLE
 DATA TYPE**

Explanation: The data type of the value to be inserted into column *name* by an INSERT or UPDATE statement is incompatible with the declared data type of the column. Both must be numeric or both must be character.

Severity: 4 (warning)

System Action: Processing continues.

Programmer Response: Be sure that the table definitions are current, and that host variables and literals have the proper data types and are matched.

DSNH414I E *csectname* LINE *nnnn* COL *cc* **THE
 NUMERIC OR DATETIME COLUMN
column-name IS SPECIFIED IN A LIKE
 PREDICATE**

Explanation: Column *column-name* with a numeric data type was specified in a LIKE predicate. Columns specified in a LIKE predicate must be character or graphic string columns.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the statement.

DSNH434I OPTION *keyword* IS A DEPRECATED
 FEATURE

Explanation: *keyword* is a deprecated feature that will not be supported in releases following DB2 Version 8. It is accepted, but we recommend that you discontinue the use of this keyword.

For indexes, we recommend that you use type 2 indexes rather than type 1 indexes.

Severity: 4 (warning)

System Action: Processing continues normally.

User Response: No change is required for the current release. However, we recommend that you change your SQL statement to remove this feature to prepare for future releases when this feature is not supported.

DSNH449I W *csectname* LINE *nnnn* COL *cc*
**CREATE FUNCTION OR PROCEDURE
 FOR *routine-name* CONTAINS AN
 INVALID FORMAT OF THE EXTERNAL
 NAME CLAUSE OR IS MISSING THE
 EXTERNAL NAME CLAUSE**

Explanation: An error was found in the EXTERNAL NAME clause of the CREATE FUNCTION or CREATE PROCEDURE statement for *name*, or the clause is needed but was not specified.

If LANGUAGE is not COMPJAVA, the external name must follow these conventions:

- The external name must be a short identifier with letters or digits. The first character must be a letter. (This is the MVS naming convention for load modules). A possible cause for this error is the inclusion of a blank in the name.
- If the external name is omitted, the external name defaults to *function-name*. However, if the function or procedure name is longer than eight characters then the EXTERNAL NAME clause must be explicitly specified to specify a valid *short identifier* as the external name.

If LANGUAGE is COMPJAVA, the length of the EXTERNAL NAME parameter value must be less than or equal to 254 bytes.

Severity: 8 (error)

System Action: The corresponding SQL statement is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the syntax of the SQL statement. Refer to the *DB2 SQL Reference* for information on the EXTERNAL NAME clause.

DSNH457I E *csectname* LINE *nnnn* COL *cc*. A
**FUNCTION OR DISTINCT TYPE
 CANNOT BE CALLED *name* SINCE IT
 IS RESERVED FOR SYSTEM USE.**

Explanation: The user-defined function or distinct type cannot be created or referenced because the name selected is reserved for use by the system.

A number of names used as keywords are reserved for system use. These names may not be used as user-defined functions or distinct-type-names, **even if they are delimited identifiers**. These names are:

=	<	>	>=	<=
<>	!=	->		
ALL	AND	ANY	BETWEEN	DISTINCT
EXCEPT	EXISTS	FALSE	FOR	FROM
IN	IS	LIKE	MATCH	NOT
NULL	ONLY	OR	OVERLAPS	SIMILAR
SOME	TABLE	TRUE	TYPE	UNIQUE
UNKNOWN				

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Select a name for the function or distinct type that is not reserved for system use.

DSNH473I E *csectname* LINE *nnnn* COL *cc*. A
**USER DEFINED DATA TYPE CANNOT
 BE CALLED THE SAME NAME AS A
 SYSTEM PREDEFINED TYPE (BUILT-IN
 TYPE).**

Explanation: The name of a data type to be created has an unqualified name that is the same as a system-predefined data type or is BOOLEAN. This is not allowed. Adding delimiters does not make the name valid. The following names are restricted:

BIGINT	BINARY	BLOB	BOOLEAN	CHAR
CHARACTER	CLOB	DATALINK	DATE	DBCLOB
DEC	DECIMAL	DOUBLE	FLOAT	GRAPHIC
INT	INTEGER	NUMERIC	REAL	REF
ROWID	SMALLINT	TIME	TIMESTAMP	VARCHAR
VARGRAPHIC				

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Correct the statement to use another identifier for the name of the new user-defined type.

DSNH487I E *csectname* LINE *nnnn* COL *cc*
object-type object-name **ATTEMPTED TO
 EXECUTE AN SQL STATEMENT WHEN
 THE DEFINITION OF THE FUNCTION
 OR PROCEDURE DID NOT SPECIFY
 THIS ACTION**

Explanation: SQL procedure *object-name* contains SQL statements, but the SQL procedure definition specifies the NO SQL option.

System Action: The SQL statement cannot be executed.

Programmer Response: Change the definition of the SQL procedure to allow SQL statements, or remove the failing SQL statement from the SQL procedure.

DSNH490I E *csectname* LINE: MV.NNNN COL *cc*
**NUMBER *number* DIRECTLY SPECIFIED
 IN A SQL STATEMENT IS OUTSIDE
 THE RANGE OF ALLOWABLE VALUES
 IN THIS CONTEXT (*minval*, *maxval*)**

Explanation: A number (*number*) was specified that is not valid in the context in which it was specified. The minimum allowed value in this context is *minval*. The maximum allowed value in this context is *maxval*. *n* must be within the range specified by *minval* and *maxval* ($minval \leq n \leq maxval$).

Severity: 8 (error)

System Action: The statement was not executed.

User Response: Change the value *n* to a valid value in the statement.

DSNH491I E *csectname* LINE *nnnn* COL *cc*.
**CREATE STATEMENT FOR
 USER-DEFINED FUNCTION
function-name MUST HAVE A RETURNS
 CLAUSE, AND EITHER THE EXTERNAL
 CLAUSE (WITH OTHER REQUIRED
 KEYWORDS) OR THE SOURCE
 CLAUSE.**

Explanation: A required clause is missing in the CREATE for function *function-name*. If EXTERNAL was specified, the following must also be specified:

- LANGUAGE
- PARAMETER STYLE

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Correct and reissue the failing statement.

DSNH504I E *csectname* LINE *nnnn* COL *cc*
CURSOR *name* WAS NOT DECLARED

Explanation: Identifier *name* is used as a cursor, but was not declared. The declaration might have been discarded because of errors.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct or add the required cursor declaration.

DSNH506I E *csectname* LINE *nnnn* COL *cc*
**DECLARE CURSOR FOR STATEMENT
 NAME MUST PRECEDE THE PREPARE
 STATEMENT FOR THAT STATEMENT
 NAME**

Explanation: This DECLARE *name* CURSOR statement is preceded by a PREPARE *name* statement. In DB2, declarations must precede action statements. This is not the same as in SQL/DS.

Severity: 8 (error)

System Action: The declaration is noted as being in error and discarded.

User Response: Move the DECLARE or PREPARE statement so that they are in the proper order, or specify the TWOPASS option if the host language is PLI, ASM, or C. The TWOPASS option has the precompiler check for declarations on the first pass and avoids this problem.

DSNH520I E *csectname* **THE OPEN STATEMENT FOR CURSOR cursor-name IS INVALID BECAUSE THE CURSOR WAS DEFINED BY AN ALLOCATE CURSOR STATEMENT**

Explanation: The cursor was not successfully declared, so it was assumed to be defined by an ALLOCATE CURSOR statement. A cursor defined by an ALLOCATE CURSOR statement is open after successful completion of the statement. Attempting to OPEN an allocated cursor is an error.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Add or fix the declaration of the cursor. If the cursor is supposed to be defined by an ALLOCATE CURSOR statement then remove the OPEN statement.

DSNH521I W *csectname* **THE statement FOR CURSOR cursor-name IS ASSUMED TO APPLY TO A DYNAMIC ALLOCATE CURSOR STATEMENT.**

Explanation: A FETCH, CLOSE, or DESCRIBE for an undeclared cursor was issued. The cursor is assumed to be defined using a dynamic ALLOCATE CURSOR statement.

Severity: 4 (warning).

System Action: The cursor is assumed to be allocated dynamically.

User Response: Ensure that the cursor in the FETCH, CLOSE, or DESCRIBE statement is dynamically allocated.

DSNH522I E *csectname* **DESCRIBE CURSOR cursor-name IS INVALID BECAUSE THE CURSOR WAS DEFINED BY A DECLARE CURSOR STATEMENT.**

Explanation: DESCRIBE CURSOR is allowed for cursors defined using the ALLOCATE CURSOR statement.

Severity: 8 (error).

System Action: The statement cannot be executed.

User Response: Remove the DESCRIBE CURSOR statement. Issue a DESCRIBE of the statement used to define the declared cursor.

DSNH527I **ERROR: THE PRECOMPILER ATTEMPTED TO USE THE DB2-SUPPLIED DSNHDECP MODULE.**

Explanation: The DSNHDECP module that is supplied by DB2 is being used to run the DB2 precompiler. The precompiler requires site-dependent settings that are

specified in the DSNHDECP module that was created when DB2 was installed. The installation-generated DSNHDECP module typically resides in the SDSNEXIT library.

System Action: Processing halts.

User Response: Check the STEPLIB, JOBLIB, or system linklist concatenation used in the DB2 address spaces. To ensure that the proper DSNHDECP module is used, verify that the library that contains the DSNHDECP module that is generated during installation precedes the SDSNLOAD library that contains the DSNHDECP module that was supplied by DB2.

System Programmer Response: The following actions are required to enable the DSNH CLIST to load your user-supplied DSNHDECP module rather than the DB2 DSNHDECP module that was supplied by DB2:

1. The JOBLIB or STEPLIB concatenation of any job or TSO userid that calls DSNH needs to allocate the library where the user-supplied DSNHDECP module resides (usually prefix.SDSNEXIT) ahead of the library where the DB2-supplied DSNHDECP module resides (prefix.SDSNLOAD).
2. The DSNH call should include the PLOAD parameter, and it should be coded as shown here: PLOAD('*(DSNHPC)').

DSNH557I E *csectname* **LINE nnnn COL cc INCONSISTENT GRANT/REVOKE KEYWORD keyword; PERMITTED KEYWORDS ARE keyword list**

Explanation: The identified *keyword* is not permitted. The *keyword list* is a list of the keywords that are permitted in this context. The combination of privileges requested on a GRANT or REVOKE statement is not allowed. The authorities must all be of one type and consistent with the form of GRANT or REVOKE. REVOKE UPDATE(column list) is not allowed; only REVOKE UPDATE is permitted.

Severity: 8 (error)

System Action: The containing SQL statement is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the syntax. If necessary, refer to Chapter 5 of *DB2 SQL Reference* for the correct syntax.

DSNH558I E *csectname* **LINE nnnn COL ccc INVALID CLAUSE OR COMBINATION OF CLAUSES ON A GRANT OR REVOKE**

Explanation: "PUBLIC AT ALL LOCATIONS" is invalid for non-table privilege GRANT or REVOKE statements. It is also invalid for table privilege GRANT or REVOKE statements that specify the ALTER or INDEX privilege.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Refer to Chapter 5 of *DB2 SQL Reference* for valid keywords for the GRANT or REVOKE statement.

DSNH577I E *csectname* LINE *nnnn* COL *cc* *object-type object-name* **ATTEMPTED TO MODIFY DATA WHEN THE DEFINITION OF THE FUNCTION OR PROCEDURE DID NOT SPECIFY THIS ACTION**

Explanation: An SQL procedure contains SQL statements that modify data, but the SQL procedure is defined with the NO SQL, READS SQL DATA, or CONTAINS SQL option.

Severity: 8 (error)

System Action: The SQL statement cannot be executed.

User Response: Change the definition of the SQL procedure to allow SQL statements that modify data, or remove the failing SQL statement from the SQL procedure.

DSNH580I E *csectname* LINE *nnnn* COL *cc* **THE RESULT-EXPRESSIONS OF A CASE EXPRESSION CANNOT ALL BE NULL**

Explanation: There is a CASE expression in the statement that has all the *result-expressions* (expressions following the THEN and ELSE keywords) coded with the keyword NULL.

Severity: 8 (error)

System Action: The statement was not processed.

Programmer Response: Change the CASE expression to include at least one *result-expression* with a keyword other than NULL.

DSNH581I E *csectname* LINE *nnnn* COL *cc* **THE DATA TYPES OF THE RESULT-EXPRESSIONS OF A CASE EXPRESSION ARE NOT COMPATIBLE**

Explanation: A CASE expression in the statement has at least one *result-expression* (expressions following the THEN and ELSE keywords) whose data type does not match that of one of the other result-expressions.

Severity: 8 (error)

System Action: The statement was not processed.

Programmer Response: Change the CASE expression so that the data types of all of the *result-expressions* are compatible.

DSNH582I E *csectname* LINE *nnnn* COL *cc* **THE SEARCH-CONDITION IN A SEARCHED-WHEN-CLAUSE CANNOT BE A QUANTIFIED PREDICATE, IN PREDICATE, OR AN EXISTS PREDICATE**

Explanation: The *search-condition* in a *searched-when-clause* specifies a quantified predicate, an IN predicate or an EXISTS predicate, but is not allowed.

Severity: 8 (error)

System Action: The statement was not processed.

Programmer Response: Correct the *search-condition*.

DSNH585I W *csectname* LINE *nnnn* COL *cc* **DUPLICATE *schema name* SCHEMA NAME**

Explanation: The identified schema name was specified twice in the statement.

Severity: 4 (error)

System Action: The duplicated schema name is ignore.

User Response: Remove/correct the duplicate specification.

DSNH586I E *csectname* LINE *nnnn* COL *cc*. **THE TOTAL LENGTH OF THE CURRENT PATH SPECIAL REGISTER CANNOT EXCEED 254 CHARACTERS.**

Explanation: The CURRENT PATH special register is defined as a VARCHAR(254). The content of the string includes each schema name delimited with double quotes and separated from the next schema name by a comma. The total length of the string of all schema names in the CURRENT PATH cannot exceed 254 characters. A SET CURRENT PATH statement causing this message would exceed this limit.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Remove schema names to reduce the total length to fit the 254 character maximum length. If all the schema names are required, it may be necessary to consolidate some user-defined functions so that fewer schema names are required for the CURRENT PATH.

DSNH587I **A list of item-references are not in the same family.**

Explanation: Each item-reference in the SET assignment statement is either a host-variable or a transition-variable. The list of item-references must be of the same family, meaning if one of the item-references

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is a transition-variable, then all of the item-references in the list must be a transition-variable. If the statement is used in the triggered action of a CREATE TRIGGER statement, each item-reference must identify a transition variable. If the statement is used in any other context, each item-reference must identify a host variable.

Severity: 8 (error)

System Action: The corresponding SQL statement is replaced by host language statements that will, if executed, set an error code in the SQLCA.

Programmer Response: Correct the statement and execute it again.

User Response: Correct the syntax of the SQL statement and precompile the program again. Refer to the DB2 SQL Reference to information on the SET assignment statement.

DSNH590I E *csectname* LINE *nnnn* COL *cc* NAME *name* IS NOT UNIQUE IN ROUTINE *routine-name*

Explanation: Name *name* is a parameter, SQL variable, condition name, or label in SQL procedure *routine-name*. *name* is not unique.

System Action: The statement cannot be processed.

Severity: 8 (error)

User Response: Change the name to make it unique within the routine.

DSNH599I W *csectname* LINE *nnnn* COL *cc*.
COMPARISON FUNCTIONS ARE NOT
CREATED FOR A DISTINCT TYPE
BASED ON A LONG STRING DATA
TYPE.

Explanation: Comparison functions are not created for a distinct type based on a long string data type (BLOB, CLOB, DBCLOB, LONG VARCHAR, LONG VARGRAPHIC) since the corresponding function are not available for these built-in data types.

Severity: 4 (warning)

System Action: Processing continues.

User Response: No action is required.

DSNH612I E *csectname* LINE *nnnn* COL *cc*
column-name IS A DUPLICATE
COLUMN NAME

Explanation: The CREATE INDEX, CREATE TABLE, CREATE VIEW or ALTER TABLE statement specifies the same 'column-name' for two (or more) columns of the index, table, view, or the UPDATE OF clause of a trigger definition specifies the same column name more than once. Column names must be unique within an index, a table, a view, or in the UPDATE OF clause of a

trigger definition. A column cannot be specified in more than one ALTER TABLE clause except if it is specified in an ALTER COLUMN clause and ADD CHECK CONSTRAINT clause.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Correct the CREATE statement to specify unique names for each of the columns of the index, table, view, or the columns in the UPDATE OF clause of a trigger definition. Correct the ALTER statement to specify unique names for each of the ALTER COLUMN clauses.

This error can also occur on CREATE TABLE when a column list of a PRIMARY KEY, FOREIGN KEY, or UNIQUE clause contains two or more occurrences of the same column name.

DSNH628I E *csectname* LINE *nnnn* COL *cc*
MUTUALLY EXCLUSIVE CLAUSES
HAVE BEEN SPECIFIED.

Explanation: Mutually exclusive clauses were specified in one or more of the following ways:

- A CREATE TABLESPACE statement contains both the SEGSIZE and Numparts clauses
- A CREATE TABLESPACE statement contains both the SEGSIZE and LARGE clauses.
- A CREATE TABLESPACE statement contains both the SEGSIZE and MEMBER CLUSTER clauses.
- A CREATE or ALTER TABLESPACE contains both the LOCKPART YES and LOCKSIZE TABLESPACE
- A 'column-definition' contains both NOT NULL and DEFAULT NULL clauses.
- A 'column-definition' contains both FIELDPROC and DEFAULT clauses.
- A select-statement contains both the update-clause and the FOR FETCH ONLY clause.
- An ALTER TABLE statement contains both a DROP CONSTRAINT clause and either a DROP FOREIGN KEY clause or a DROP CHECK clause.
- A CREATE or ALTER TABLESPACE contains both the LOCKPART YES and LOCKSIZE TABLESPACE
- A CREATE TRIGGER statement specifies more than one correlation name for OLD, NEW, OLD_TABLE, or NEW_TABLE. Each of these correlation specific can appear no more than once in the CREATE TRIGGER statement.
- A CREATE FUNCTION statement contains both a CAST FROM clause and a SOURCE clause.
- A CREATE FUNCTION statement contains both a SOURCE clause and a RETURNS TABLE clause.
- A CREATE FUNCTION statement contains both a SOURCE clause and a clause used to define an external function (EXTERNAL, LANGUAGE, NO SQL).

- A CREATE or ALTER PROCEDURE statement attempts to use the NO WLM ENVIRONMENT and PROGRAM TYPE SUB options. When NO WLM ENVIRONMENT is used, then PROGRAM TYPE MAIN must also be used.
- A CREATE or ALTER PROCEDURE statement attempts to use both NO WLM ENVIRONMENT and either USER or DEFINER for EXTERNAL SECURITY. When NO WLM ENVIRONMENT is used, then PARAMETER STYLE must be either GENERAL or SIMPLE CALL WITH NULLS.
- A CREATE or ALTER PROCEDURE statement contains both a LANGUAGE REXX clause, and a PARAMETER STYLE DB2SQL or PARAMETER STYLE JAVA clause.
- An ALTER TABLE statement contains both an ALTER COLUMN clause and a VALIDPROC clause.
- An ALTER TABLE statement contains both an ALTER COLUMN clause and a clause other than the check constraint clause.

Severity: 8 (error)

System Action: The statement was not executed.

Programmer Response: Change the options specified in the statement and reissue the statement.

DSNH630E E *csectname* **LINE *nnnn* COL *cc* THE WHERE NOT NULL SPECIFICATION IS INVALID FOR TYPE 1 INDEXES**

Explanation: Type 1 indexes cannot be created with the WHERE NOT NULL specification.

Severity: 8 (error)

System Action: The statement cannot be executed.

Programmer Response: Either the index must be created as a type 2 index, or the WHERE NOT NULL specification must not be used.

DSNH637I E *csectname* **LINE *nnnn* COL *cc* DUPLICATE *keyword* KEYWORD**

Explanation: The identified keyword was specified twice in the statement.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Remove the duplicate specification.

DSNH644I E *csectname* **INVALID VALUE SPECIFIED FOR KEYWORD *keyword* IN *stmt-type* STATEMENT**

Explanation: The value specified for the *keyword* parameter in the *stmt-type* SQL statement is not a permitted value.

Severity: 8 (error)

System Action: If the SQL statement containing the problem is a declaration, it is discarded. If the SQL statement containing the problem is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

User Response: Correct the statement. Refer to Chapter 5 of *DB2 SQL Reference* for information about the allowable values for the *keyword* in the *stmt-type* statement.

DSNH683I E *csectname* **LINE *nnnn* COL *cc*. THE SPECIFICATION FOR COLUMN, DISTINCT TYPE, FUNCTION, OR PROCEDURE *data-item* CONTAINS INCOMPATIBLE CLAUSES**

Explanation: There is an error in the data item specification in a statement. Incompatible specifications are present such as "INTEGER and FOR BIT DATA", or "INTEGER AS LOCATOR". The location of the error is given by *data-item* as follows:

- For a CREATE or ALTER TABLE statement, *data-item* gives the name of the column containing the error. The error could be an invalid specification of FOR BIT DATA, FOR SBCS DATA, FOR MIXED DATA, or FIELDPROC for column *data-item*.
- For a CREATE FUNCTION or CREATE PROCEDURE statement, *data-item* is a token that identifies the area of the problem in the statement. For example, "PARAMETER 3", "RETURNS", or "CAST FROM".
- For a CREATE DISTINCT TYPE statement, *data-item* gives the name of the type being defined
- Otherwise, *data-item* is a token that identifies the area of the problem in a parameter list for a function. For example, "PARAMETER 5".

Severity: 8 (error)

System Action: The statement cannot be processed.

User Response: Correct and reissue the failing statement.

DSNH684I E *csectname* **LINE *nnnn* COL *cc* LENGTH OF LITERAL LIST BEGINNING *string* IS TOO LONG**

Explanation: The length of the literal list beginning with *string*, excluding insignificant blanks and delimiting parenthesis, is greater than 255.

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Severity: 8 (error)

System Action: The SQL statement cannot be executed.

System Programmer Response: Correct the SQL statement. Refer to Chapter 2 of *DB2 SQL Reference* for information about writing literal lists.

DSNH700I I *csectname* THE FIPS STANDARD IS USED FOR FLAGGING

Explanation: This message identifies the standard used for flagging during execution.

Severity: 0 (informational)

System Action: Processing continues.

DSNH701I I *csectname* THE IBM SQL STANDARD IS USED FOR FLAGGING

Explanation: This message identifies the standard used for flagging during execution.

Severity: 0 (informational)

System Action: Processing continues.

DSNH702I W *csectname* LINE *nnnn* COL *cc* THE STATEMENT DEVIATES FROM THE SQL STANDARD AT THE TOKEN COMMENCING WITH THE TEXT *text*

Explanation: A syntax deviation from the standard named in the earlier message (FIPS or IBM SQL) was found in the SQL statement.

Severity: 4

User Response: Check and correct the SQL statement.

DSNH703I W *csectname* LINE *nnnn* COL *cc*. A DATA DEFINITION STATEMENT IS NOT WITHIN A CREATE SCHEMA STATEMENT

Explanation: The FIPS standard requires all data definition statements to be contained within a CREATE SCHEMA statement.

Severity: 4

User Response: Check and correct the SQL statement.

DSNH704I W *csectname* LINE *nnnn* COL *cc*. THERE IS A NONSTANDARD EMBEDDED COMMENT

Explanation: A comment embedded within an SQL statement does not meet the requirements of the standard being flagged: The FIPS standard is being

checked and the comment does not begin with at least two consecutive hyphens.

Severity: 4

User Response: Check and correct the SQL statement.

DSNH705I W *csectname* LINE *nnnn* COL *cc*. AN SQL SYNTAX DEVIATION OCCURRED. THE STATEMENT IS NOT COMPLETE

Explanation: The SQL statement terminated before all required elements were found.

Severity: 4

User Response: Check and correct the SQL statement.

DSNH706I W *csectname* LINE *nnnn* COL *cc*. THE IDENTIFIER *token* IS GREATER THAN 18 CHARACTERS

Explanation: Authorization identifier, table identifier, column name, correlation name, module name, cursor name, procedure name, or parameter name has a length of more than 18 characters.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH707I W *csectname* LINE *nnnn* COL *cc*. THE COLUMN *column* HAS AN INVALID LENGTH, PRECISION, OR SCALE ATTRIBUTE

Explanation: One of the following conditions was not met:

- The length value should be greater than zero.
- The precision value should be greater than zero.
- The scale value should not be greater than precision.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH708I W *csectname* LINE *nnnn* COL *cc*. THE DATA TYPE OF *token* SHOULD BE EXACT NUMERIC WITH A SCALE OF ZERO

Explanation: The data type of INDICATOR PARAMETER or INDICATOR VARIABLE should be exact numeric with a scale of zero.

Severity: 4

User Response: Note the deviation from the

applicable standard. Check and correct the SQL statement.

DSNH709I W *csectname* LINE *nnnn* COL *cc*. THE SET FUNCTION REFERENCES COLUMN *column*

Explanation: One of the following conditions was not met:

- A column specification of a DISTINCT set function cannot reference a column derived from a set function specification.
- A column specification of an ALL set function cannot reference a column derived from a set function specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH710I W *csectname* LINE *nnnn* COL *cc*. A VALUE EXPRESSION CONTAINING *column* CANNOT INCLUDE OPERATORS

Explanation: A value expression cannot include operators in an outer reference column specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH711I W *csectname* LINE *nnnn* COL *cc*. THE COLUMN SPECIFICATION IS MISSING OR INVALID FOR THE ALL SET FUNCTION *function*

Explanation: The value expression of an ALL set function specification should include a column specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH712I W *csectname* LINE *nnnn* COL *cc* THE COLUMN *column* IS NOT UNIQUE AND REQUIRES QUALIFICATION.

Explanation: The identified column is duplicated within the current scope. Qualification must be given to uniquely identify the required column.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH713I W *csectname* LINE *nnnn* COL *cc*. A VALUE EXPRESSION MAY NOT CONTAIN A SET FUNCTION SPECIFICATION

Explanation: The value expression of an ALL set function might not contain a set function specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH714I W *csectname* LINE *nnnn* COL *cc*. THE COLUMN *column* DOES NOT IDENTIFY A COLUMN OF A TABLE WITHIN THE CURRENT SCOPE

Explanation: One of the following conditions was found:

- The table or correlation name used as a qualifier does not exist.
- The column name does not exist within the current scope or the scope of the qualifier.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH715I W *csectname* LINE *nnnn* COL *cc*. A SET FUNCTION THAT CONTAINS THE OUTER REFERENCED COLUMN *column* IS NOT IN THE SUBQUERY OF A HAVING CLAUSE

Explanation: A set function specification must be contained in a subquery of a HAVING clause if it contains an outer referenced column specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH716I W *csectname* LINE *nnnn* COL *cc* THE RESULT OF A SUM OR AVG FUNCTION CANNOT BE A CHARACTER STRING

Explanation: The character string is not valid for the result of a SUM or AVG set function specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH717I W *csectname* LINE *nnnn* COL *cc*. THE OPERATOR *operator* IS INVALID IN THIS CONTEXT

Explanation: One of the following conditions was not met:

- A value expression containing a distinct set function cannot include dyadic operators.
- The first character following a monadic operator cannot be a plus or minus sign.
- The value expression should not contain operators if primary is a character string.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH718I W *csectname* LINE *nnnn* COL *cc*. THE *exptype* EXPRESSION IS COMPARING INCOMPATIBLE DATA TYPES

Explanation: The data types of one of the following (identified by *exptype*) do not match:

exptype	Meaning
----------------	----------------

COMPARISON

Comparison operators must match.

BETWEEN

The three value expressions must match.

IN

Value expression, subquery, and all value specifications must match.

QUANTIFIED

Value expression and subquery must match.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH719I W *csectname* LINE *nnnn* COL *cc*. THE OPERAND IN THE LIKE PREDICATE IS NOT A CHARACTER STRING

Explanation: One of the following conditions was found:

- The data type of the column in a LIKE predicate is not a character string.
- The data type of the pattern in a LIKE predicate is not a character string.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH720I W *csectname* LINE *nnnn* COL *cc*. THE ESCAPE CHARACTER MUST BE A ONE-BYTE CHARACTER STRING

Explanation: The escape character in a LIKE predicate must have the data type of character string with a length of 1.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH721I W *csectname* LINE *nnnn* COL *cc*. THE WHERE CLAUSE, GROUP BY CLAUSE, OR HAVING CLAUSE IS INVALID FOR THE GROUPED VIEW *table*.

Explanation: If the table identified in the FROM clause is a grouped view, then the table expression must not contain a WHERE clause, GROUP BY clause, or HAVING clause.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH722I W *csectname* LINE *nnnn* COL *cc*. *name* OCCURS MORE THAN ONCE IN A FROM CLAUSE

Explanation: One of the following conditions was found:

- The table name occurs more than once in a FROM clause.
- The correlation name is identical to a table name or to another correlation name in a FROM clause.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH723I W *csectname* LINE *nnnn* COL *cc*. ONLY ONE TABLE REFERENCE IS ALLOWED IN THE FROM CLAUSE FOR A GROUPED VIEW

Explanation: If the table identified by table name is a grouped view, then the FROM clause must contain exactly one table reference.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH724I W *csectname* LINE *nnnn* COL *cc*. A REFERENCE TO THE COLUMN *column* WHICH IS DERIVED FROM A SET FUNCTION IS INVALID IN A WHERE CLAUSE

Explanation: A value expression directly contained in the search condition of a WHERE clause must not include a reference to a column derived from a set function specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH725I W *csectname* LINE *nnnn* COL *cc*. A WHERE CLAUSE MUST BE CONTAINED IN A HAVING CLAUSE WHEN A FUNCTION IS USED

Explanation: If a value expression directly contained in the search condition is a set function specification, then the WHERE clause must be contained in a HAVING clause.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH726I W *csectname* LINE *nnnn* COL *cc*. THE COLUMN SPECIFICATION FOR *column* MUST BE AN OUTER REFERENCE

Explanation: If a value expression directly contained in the search condition is a function, then the column specification in the function must be an outer reference.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH727I W *csectname* LINE *nnnn* COL *cc*. THE COLUMN *column* IS DUPLICATED WITHIN THE CURRENT SCOPE

Explanation: The specified column is duplicated within the current scope.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH728I W *csectname* LINE *nnnn* COL *cc*. THE COLUMN SPECIFICATION FOR *table* SHOULD BE A GROUPING COLUMN OR SHOULD BE SPECIFIED WITHIN A SET FUNCTION

Explanation: Each column specification contained in a subquery in the search condition of a HAVING clause must reference a grouping column or be specified within a set function specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH729I W *csectname* LINE *nnnn* COL *cc*. THE DEGREE OF TABLE *table* SHOULD BE 1 WHEN USING A RESULT SPECIFICATION OF *

Explanation: The degree of the table expression must be 1 if the result specification '*' is specified in a subquery of any predicate other than an EXISTS predicate.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH730I W *csectname* LINE *nnnn* COL *cc*. THE SET FUNCTION IS NOT VALID FOR THE TABLE EXPRESSION BEGINNING WITH *table*

Explanation: One of the following conditions was not met:

- If the table expression is a grouped view, the result specification of a subquery cannot contain a set function specification.
- If the table expression is a grouped view, the select list of a query specification cannot contain a function.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH731I W *csectname* LINE *nnnn* COL *cc*. THE COLUMN SPECIFICATION FOR *column* IS INVALID

Explanation: One of the following conditions was not met:

- For a grouped table, the column specification must reference a grouping column or be specified within a set function specification.

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- If it is not a grouped table, and the value expression includes a set function specification, then each column specification must be specified within a set function.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH732I W *csectname* LINE *nnnn* COL *cc*.
DISTINCT IS SPECIFIED MORE THAN ONCE.

Explanation: One of the following conditions has not been met:

- DISTINCT must not be specified more than once in a query specification, excluding any subquery of that query specification.
- DISTINCT must not be specified more than once in a subquery, excluding any subquery contained in that subquery.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH733I W *csectname* LINE *nnnn* COL *cc*. **THE COMPARISON PREDICATE SUBQUERY CANNOT CONTAIN A GROUP BY OR HAVING CLAUSE**

Explanation: If a subquery is specified in a comparison predicate, then the table expression whose FROM clause identifies the named table must not contain a GROUP BY clause or a HAVING clause.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH734I W *csectname* LINE *nnnn* COL *cc*. **THE COMPARISON PREDICATE SUBQUERY CANNOT IDENTIFY A GROUPED VIEW**

Explanation: If a subquery is specified in a comparison predicate, then the table expression whose FROM clause identifies the named table must not identify a grouped view.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH735I W *csectname* LINE *nnnn* COL *cc*.
INVALID AUTHORIZATION IDENTIFIER
authid

Explanation: The authorization identifier prefixed to the table name is invalid.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH736I W *csectname* LINE *nnnn* COL *cc*. **THE TABLE OR VIEW *name* ALREADY EXISTS**

Explanation: The table name or view name specified already exists in the catalog.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH737I W *csectname* LINE *nnnn* COL *cc*. **THE COLUMN DEFINITION IS MISSING**

Explanation: At least one column definition should be specified for a CREATE TABLE.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH738I W *csectname* LINE *nnnn* COL *cc*. **THE DATA TYPE *type1* OF THE TARGET IS NOT COMPATIBLE WITH THE DATA TYPE *type2* OF THE SOURCE**

Explanation: Data types should match between source and target in a FETCH and SELECT statement.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH739I E *csectname* LINE *nnnn* COL *cc*.
CREATE FUNCTION *function-name*
FAILED BECAUSE FUNCTIONS
CANNOT MODIFY DATA WHEN THEY
ARE PROCESSED IN PARALLEL.

Explanation: The function cannot be created because ALLOW PARALLEL and MODIFIES SQL DATA were both specified explicitly or implicitly. A function cannot be parallelized if it modifies data.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Specify DISALLOW PARALLEL or change the MODIFIES SQL DATA to NO SQL, CONTAINS SQL or READS SQL DATA.

DSNH740I *xxxxxx phase FINISHED, RC = retcode, LISTING IN data-set*

Explanation: The DSNH INST phase completed with return code *retcode*. The *phase* is one of the following:

- PLI Macro Pass
- Precompiler
- CICS Command Translator
- Bind Package
- Bind Plan
- Compile/assembly
- PLI
- Prelink (unique to C/370 Compiler)
- Link
- Run

If the CLIST puts the listing into a data set, the name of the data set is shown as *data-set*. If the PRINT parameter is LEAVE, NONE, or TERM, the 'LISTING IN *data-set*' part of this message is omitted.

Refer to message DSNH756I for an explanation of the print data set names assigned during processing.

This message is issued by the following CLIST: DSNH

Severity: *retcode*

System Action: Processing continues as requested.

User Response: This phase is complete. If there are errors, other messages are produced. The next phase requested begins. The order of the phases is:

1. PLI Macro Pass
2. Precompiler
3. CICS Command Translator
4. Bind Package
5. Bind Plan
6. ASM, ASMH, C (C/370 Compiler), COBOL, COBOL2, FORTRAN, PLI
7. Prelink
8. Link
9. Run

DSNH741I *process1(NO) IMPLIES THAT process2 CANNOT BE RUN*

Explanation: An inconsistent processing set was specified. An earlier phase and a later phase were requested, but not the intermediate step needed to process data between them. For example, requesting the precompile and the link edit without the compile produces this error. Values for *process1* are PRECOMP, CICSXLAT, COMPILE, LINK, or BIND. Values for *process2* are COMPILE, LINK, or RUN.

This message is issued by the following CLIST: DSNH

Severity: 4 (warning)

System Action: *process2* is not performed, but other processing is done.

User Response: Specify a consistent combination of processing. Application program preparation needs to run all the steps to provide a correct application program. The process does allow beginning or ending steps to be run at a different time. See message DSNH740I for the required step order.

DSNH750I **INVALID DATA SET:** *clist-keyword clist-keyword-parameter*

Explanation: The data set name specified on the *clist-keyword-parameter* contains unbalanced parenthesis.

This message is issued by the following CLIST: DSNH

Severity: 8 (error)

System Action: The CLIST is terminated.

User Response: If a member name is to be associated with the specified data set, the member name must be enclosed in parentheses.

DSNH751I *clist ERROR IN parameter VALUE value*

Explanation: The specified CLIST keyword *parameter* does not have an acceptable value.

Severity: 8 (error)

System Action: The CLIST processing is terminated.

User Response: Refer to the DSNH (TSO clist) section in *DB2 Command Reference* for a complete list of the supported CLIST parameters and their associated values. Correct the invalid parameter, and resubmit the job.

DSNH752I **INPUT DATA SET NAME IS MISSING OR NONE**

Explanation: The DSNH CLIST requires a value for the input data set name (INPUT). You cannot use an input data set name of NONE.

This message is issued by the following CLIST: DSNH

Severity: 0 (successful)

System Action: The CLIST prompts for a name, if prompting is allowed. If prompting is not allowed, for example in batch or when PROFILE NOPROMPT was entered, the CLIST terminates.

User Response: Specify an INPUT name. See message DSNH753I.

DSNH753I ENTER INPUT DATA SET NAME

Explanation: The CLIST is requesting the name of the input data set.

This message is issued by the following CLIST: DSNH

Severity: 0 (successful)

System Action: The system waits for user to enter data set name or for the CLIST to be terminated.

User Response: Enter the name of the data set. Do not specify the parameter or command, but just enter the name of the data set. The standard TSO prefixing will be done if the data set name is not entered within apostrophes.

DSNH754I *clist* OUTNAME PARAMETER *name* MUST NOT CONTAIN SPECIAL CHARACTERS

Explanation: The DSNH and DSNHC CLISTs, *clist*, use the OUTNAME parameter to build names for a number of data sets that are passed from phase to phase. These names are prefixed by an authorization ID or TSO prefix value and have a number of suffixes. For this reason, OUTNAME parameter *name* must not contain special characters. It can contain a period or national characters. It cannot have apostrophes to specify a single data set name.

Severity: 8 (error)

System Action: The CLIST is terminated.

User Response: Correct the input request. The default for this parameter is TEMP, which should be adequate for most usage.

DSNH755I OUTNAME PARAMETER *name* MUST NOT BEGIN THE SAME AS INPUT *input*

Explanation: The DSNH CLIST uses the OUTNAME parameter *name* to build a number of data sets that are passed from phase to phase. These data sets could conflict with the INPUT data set (*input*) if the names are the same, causing the INPUT data set to be overwritten. To avoid this problem, the names are not allowed to have the same initial characters.

This message is issued by the following CLIST: DSNH

Severity: 8 (error)

System Action: The CLIST is terminated.

User Response: Correct the input request. Specify a different OUTNAME. The default for OUTNAME is TEMP.

DSNH756I *clist* PRINT PARAMETER *name* MUST NOT CONTAIN SPECIAL CHARACTERS

Explanation: The DSNH and DSNHC CLISTs (*clist*) use the PRINT parameter to build names for data sets used for the print listings from various phases. These names are prefixed by an authorization ID or a TSO prefix value and have a number of suffixes. The PRINT parameter *name* can contain a period or national characters, but it cannot contain special characters. It cannot have apostrophes to specify a single data set name.

The data set names built using the PRINT(print) qualifier are the following:

- print.CXLIST**
CICS Command Translator
- print.LINKLIST**
Linkage Editor
- print.LIST**
Compiler or Assembler
- print.PCLIST**
DB2 Precompiler
- print.SYSCPRT.LIST**
C/370 Compiler
- print.SYSOUT.PRELLIST**
C/370 Prelink Utility

Severity: 8 (error)

System Action: The CLIST terminates.

User Response: Correct the *name* specified with the PRINT parameter.

DSNH757I ERROR IN PLAN NAME LENGTH *value*

Explanation: The *value* is too long for a plan name. A plan name has a maximum of 8 characters.

This message is issued by the following CLIST: DSNH

Severity: 8 (error)

System Action: The CLIST is terminated.

User Response: Specify a plan name with 8 or fewer characters.

DSNH758I HOST(*host-language*) IS NOT PERMITTED WITH RUN(IMS) OR RUN(CICS)

Explanation: There is no facility for connecting a FORTRAN program to either IMS or CICS.

This message is issued by the following CLIST: DSNH

Severity: 8 (error)

System Action: The CLIST terminates.

User Response: Use the specified language in the TSO or batch environment.

DSNH759I *clist* **TERMINATING**, *phase RC = retcode*

Explanation: The DSNH or DSNHC *clist* terminated at *phase* because the return code *retcode* was greater than or equal to the RCTERM parameter value.

The *phase* is one of the following:

ASM	ASMH
BIND Package	BIND Plan
	CICS Command Translator
COBOL	COB2
CLIST CHECKING	FORTRAN
PLI	C (C/370 Compiler)
Prelink	Link
PLI Macro Pass	Precompiler
Run	

Severity: *retcode*

System Action: The CLIST terminates.

User Response: Determine the cause for the high return code. If the parameters include TERM(NONE) and direct the PRINT to a data set, you might need to search the print data sets for the listing of the error. Refer to message DSNH756I for an explanation of the print data set names assigned during processing.

Problem Determination: The location of the messages describing the prior errors depends upon the values of the TERM and PRINT parameters. The messages can be directed to the terminal, to preallocated data sets, or to data sets dynamically allocated during CLIST processing.

If TERM(NONE) PRINT(NONE) was specified, the messages are not available. Execute the CLIST again and specify a location for the error messages.

To find the documentation, note the immediately preceding DSNH740I message for the location of the listings. If the 'LISTING IN data-set' portion of the message is missing, specify a PRINT data set, SOURCE(YES) and XREF(YES), and execute the CLIST again. Use TERM(TERM) to direct error messages to your terminal. These listings and execution of the DSNH CLIST are required for problem diagnosis.

If the error is in the CLIST or the error location is CLIST CHECKING, use CONTROL(SYMLIST) to produce a detailed trace of the CLIST execution and provide the trace listing.

Check for DSNH751I messages that describe the error.

DSNH760I **PRELINK OPTION INVALID WITH HOST LANGUAGE** (*host-language*)

Explanation: Invocation of the PRELINK step is not supported by *host-language*. This option is only valid for the following DSNH HOST language compilers: C, CPP, and IBMCOB.

This message is issued by the following CLIST: DSNH

Severity: 4 (error)

System Action: The DSNH PRELINK parameter is ignored and prelink utility processing is bypassed. Clist processing continues normally with a return code of 4.

User Response: Refer to the description of the DSNH PRELINK keyword option in *DB2 Command Reference*.

DSNH770I **W csectname LINE nnnn COL cc. YOU MUST DECLARE COLUMN column AS NOT NULL**

Explanation: All columns identified as UNIQUE must be defined with the NOT NULL option.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH771I **W csectname LINE nnnn COL cc. THE VIEWED TABLE table MUST BE UPDATEABLE**

Explanation: When the WITH CHECK OPTION is specified, then the viewed table must be updateable.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH772I **W csectname LINE nnnn COL cc. INVALID NUMBER OF COLUMN NAMES**

Explanation: The number of column names in the view column list should be the same as the degree of the table specified by the query specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH773I **W csectname LINE nnnn COL cc. YOU MUST DECLARE THE CURSOR cursor BEFORE USE**

Explanation: The cursor specified was not declared in a DECLARE CURSOR statement.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH774I W *csectname* LINE *nnnn* COL *cc*. THE CURSOR *cursor* IS ALREADY DECLARED

Explanation: The cursor specified was already declared in a DECLARE CURSOR statement.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH775I W *csectname* LINE *nnnn* COL *cc*. ONLY '**' OR COLUMN NAMES ARE VALID IN THIS CONTEXT

Explanation: When UNION is specified, the select list for the specification of the two table expressions identified by the query expression and query term should consist of '**' or column specifications.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH776I W *csectname* LINE *nnnn* COL *cc*. THE DESCRIPTIONS OF TABLES IDENTIFIED BY THE QUERY EXPRESSION BEGINNING WITH TABLE: *table1* AND THE QUERY TERM BEGINNING WITH TABLE: *table2* SHOULD BE IDENTICAL

Explanation: When UNION is specified, the descriptions of the two tables should be identical, except for the column names.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH777I W *csectname* LINE *nnnn* COL *cc*. THE SORT SPECIFICATION *number* IS OUTSIDE THE DEGREE OF TABLE *table*

Explanation: If the sort specification contains an unsigned integer, it should be greater than zero and not greater than the number of columns in the table.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH778I W *csectname* LINE *nnnn* COL *cc*. THE TABLE *table* IS A READ-ONLY TABLE

Explanation: A DELETE, an INSERT, or an UPDATE statement was specified on a read-only table.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH779I W *csectname* LINE *nnnn* COL *cc*. THE TABLE *table* MUST NOT BE IDENTIFIED IN A FROM CLAUSE OF ANY SUBQUERY CONTAINED IN A SEARCH CONDITION

Explanation: A table specified in a DELETE or an UPDATE statement cannot be used in a FROM clause of any subquery contained in its search condition.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH780I W *csectname* LINE *nnnn* COL *cc*. THE TABLE *table1* IS NOT THE FIRST TABLE *table2* SPECIFIED IN THE DECLARE CURSOR STATEMENT

Explanation: The table specified in a DELETE or an UPDATE statement should be the first table specified in the FROM clause of the DECLARE CURSOR statement.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH781I W *csectname* LINE *nnnn* COL *cc*. THE NUMBER OF TARGET SPECIFICATIONS DO NOT MATCH THE DEGREE OF TABLE *table*

Explanation: The number of target specifications in the FETCH statement do not match the degree of the table specified.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH782I W *csectname* LINE *nnnn* COL *cc*. THE TARGET TABLE *table* OF THE INSERT STATEMENT IS ALSO IN THE FROM CLAUSE OR IN A CONTAINED SUBQUERY

Explanation: The named table must not be identified in a FROM clause of a query specification or of any subquery contained in the query specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH783I W *csectname* LINE *nnnn* COL *cc*. THE NUMBER OF COLUMNS SPECIFIED DOES NOT MATCH THE NUMBER OF VALUES SPECIFIED

Explanation: In an INSERT statement, the number of columns specified does not match the number of values specified.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH784I W *csectname* LINE *nnnn* COL *cc*. THE NUMBER OF COLUMNS SPECIFIED DOES NOT MATCH THE DEGREE OF TABLE *table* IN THE QUERY SPECIFICATION

Explanation: The number of columns specified in an INSERT statement does not match the degree of the table specified in the query specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH785I W *csectname* LINE *nnnn* COL *cc*. THERE IS A DATA TYPE OR LENGTH MISMATCH BETWEEN COLUMN *column* AND ITS INSERT OR UPDATE ITEM

Explanation: One of the following conditions was not met:

- If the data type of the column name is character string, then the corresponding item in the INSERT or UPDATE statement should be character string with a length equal to or less than the length of the column name.
- If the data type of the column name is exact numeric, then the corresponding item in the INSERT or UPDATE statement should be exact numeric.

- If the data type of the column name is approximate numeric, then the corresponding item in the INSERT or UPDATE statement should be approximate numeric or exact numeric.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH786I W *csectname* LINE *nnnn* COL *cc*. YOU CANNOT USE A GROUP BY OR HAVING CLAUSE OR IDENTIFY A GROUPED VIEW IN THIS CONTEXT

Explanation: The table identified in the FROM clause of the table expression in a SELECT statement should not include a GROUP BY or HAVING clause and should not identify a grouped view.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH787I W *csectname* LINE *nnnn* COL *cc*. THE NUMBER OF ELEMENTS SPECIFIED IN THE SELECT LIST SHOULD MATCH THE NUMBER IN THE TARGET LIST

Explanation: In the SELECT statement, the number of elements specified in the select list should match the number of elements in the target list.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH788I W *csectname* LINE *nnnn* COL *cc*. THE SET FUNCTION *function* IS NOT ALLOWED IN AN UPDATE STATEMENT

Explanation: A value expression in a SET clause of an UPDATE statement should not include a set function specification.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH789I W *csectname* LINE *nnnn* COL *cc*. YOU CANNOT SPECIFY NULL FOR NOT NULL COLUMN *column*

Explanation: If NULL is specified in the SET clause of the UPDATE statement, then the corresponding column should allow nulls.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH790I W *csectname* LINE *nnnn* COL *cc*.
THERE IS AN INVALID SQL TERMINATOR FOR THE HOST LANGUAGE

Explanation: The SQL statement was not terminated by the correct construct for the host language being processed.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH791I W *csectname* LINE *nnnn* COL *cc*. YOU
MUST DEFINE THE HOST VARIABLE identifier

Explanation: The host variable named was either not defined within the program or defined outside the SQL declaration section.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH792I W *csectname* LINE *nnnn* COL *cc*. THE
TABLE *table* WAS NOT FOUND IN THE CATALOG

Explanation: The named table does not exist in the catalog.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH793I W *csectname* LINE *nnnn* COL *cc*.
THERE IS AN INVALID IDENTIFIER FORMAT *identifier* FOR HOST LANGUAGE *language*

Explanation: The format of the identifier name displayed does not meet the requirements of the host language.

Severity: 4

User Response: Note the deviation from the applicable standard. Check and correct the SQL statement.

DSNH794I W *csectname* LINE *nnnn* COL *cc*. THE
OBJECT *object-name* CANNOT BE CREATED BECAUSE THE FIRST THREE CHARACTERS ARE RESERVED FOR SYSTEM OBJECTS

Explanation: In general, SYS is a reserved prefix for names. The only exceptions are:

- SYSPROC is a valid schema name for stored procedures.
- SYSADM is a valid schema name.

This condition is similar to the condition reported in SQLCODE -707.

Severity: 4

User Response: Select a name that does not start with a reserved prefix.

DSNH795I E *csectname* LINE *nnnn* COL *cc*.
INVALID SPECIFICATION OF A ROWID COLUMN

Explanation: For a CREATE TABLE statement, the specification of a ROWID column may be invalid for one of the following reasons:

- A ROWID column cannot be a column of a temporary table
- A ROWID column cannot be a column of a table with an EDITPROC
- A ROWID column cannot be a column of a foreign key
- A ROWID column cannot be a column of a primary key
- A ROWID column cannot be referenced in the check-condition of a table check constraint.

Severity: 8

System Action: The statement was not executed.

User Response: Correct the syntax.

DSNH867I E *csectname* LINE *nnnn* COL *cc*.
INVALID SPECIFICATION OF A ROWID COLUMN

Explanation: For a CREATE TABLE statement, the specification of a ROWID column might be invalid for one of the following reasons:

- A ROWID column cannot be a column of a temporary table.
- A ROWID column cannot be a column of a table with an EDITPROC.
- A ROWID column cannot be a column of a foreign key.
- A ROWID column cannot be a column of a primary key.

- A ROWID column cannot be referenced in the check-condition of a table check constraint.

Severity: 8

System Action: The statement was not executed.

User Response: Correct the syntax.

DSNH870I W *csectname* THERE IS NOT ENOUGH MEMORY FOR THE FLAGGER; FLAGGING IS DISCONTINUED

Explanation: The flagger could not allocate enough storage to load all required modules.

Severity: 4

System Action: Precompiling continues but flagger operation is discontinued.

User Response: Increase the region size in the JCL for the application. Allocate more storage for flagger operation.

DSNH871I W *csectname* AN ERROR OCCURRED WHEN ATTEMPTING TO LOAD THE FLAGGER MODULE *module*. FLAGGING IS DISCONTINUED

Explanation: A flagger module was not found during flagger initialization.

Severity: 4

System Action: Precompiling continues but flagger operation is discontinued.

User Response: Refer to the message produced by the operating system for details of causes and proceed as instructed for that message.

DSNH872I W *csectname* AN ERROR OCCURRED WHEN INITIALIZING THE FLAGGER. FLAGGING IS DISCONTINUED

Explanation: An internal error occurred during flagger initialization.

Severity: 4

System Action: Precompiling continues but flagger operation is discontinued.

User Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNH873I W *csectname* THE FLAGGER COULD NOT PROCESS THE SQL STATEMENT. FLAGGING IS DISCONTINUED

Explanation: An SQL statement passed to the flagger caused an internal error within the flagger.

Severity: 4

System Action: Precompiling continues but flagger operation is discontinued.

User Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNH874I W *csectname* AN ERROR OCCURRED WHEN TERMINATING THE FLAGGER

Explanation: An internal error occurred during flagger termination.

Severity: 4

System Action: Precompiling continues but flagger operation is discontinued.

User Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNH875I W *csectname* AN ERROR OCCURRED WHEN ATTACHING TO DB2, REASON CODE: X'*reason*'; FLAGGING CONTINUED AS SYNTAX ONLY

Explanation: An error occurred while trying to connect or disconnect from the DB2 subsystem.

Severity: 4

System Action: Processing continues without semantics flagging.

User Response: Refer to the reason code returned in this message and perform corrective actions.

DSNH876I W *csectname* AN ERROR SQLCODE *sqlcode* WAS RETURNED DURING FLAGGER ACCESS TO THE CATALOG OBJECT *authid.table*. MODULE NAME: *module* ERROR REASON CODE: X'*reason*'; FLAGGING CONTINUES WITH SYNTAX CHECK ONLY

Explanation: An error occurred during the execution of a flagger access to the DB2 catalog.

Severity: 4

System Action: Processing continues without semantics flagging.

User Response: Use the provided SQL return code, object type, and name to identify the problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNH877I **W** *csectname* **NOT ENOUGH MEMORY FOR FLAGGER OPERATION: RETURN CODE: return**

Explanation: Insufficient storage is available for flagger operation.

Severity: 4

System Action: Processing continues without flagging.

User Response: Check whether the storage allocation for the precompiler can be increased. Allocate more storage for flagger operation.

DSNH878I **W** *csectname* **ERROR RELEASING FLAGGER MEMORY; FLAGGING IS DISCONTINUED**

Explanation: An error occurred when a flagger module attempted to release storage back to the flagger pool.

Severity: 4

System Action: Processing continues without flagging.

User Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNH879I **W** *csectname* **ERROR RELEASING FLAGGER MEMORY; RETURN CODE return**

Explanation: An error occurred when a flagger module attempted to release storage back to the operating system.

Severity: 4

System Action: Processing continues without flagging.

User Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNH880I **W** *csectname* **AN ERROR WAS RETURNED DURING FLAGGER ACCESS TO THE DB2 CATALOG; REASON CODE: X'reason' RETURN CODE X'return'**

Explanation: An error occurred when a flagger module attempted to access the system catalog.

Severity: 4

System Action: Processing continues without flagging.

User Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for

information on identifying and reporting the problem.

DSNH901I **S** *csectname* **U LINE nnnn COL cc INTERNAL PRECOMPILER ERROR – REASON CODE ccc**

Explanation: An internal compiler consistency check failed. Reason codes are:

- 000** The message formatter was called with an unlisted internal message number.
- 001** The parser received a token code of 0 from the lexical scan. Lexical scan refers to a scan of words rather than syntax.
- 002** Error in storage suballocation control blocks.
 - The error might have occurred because a DB2 SQL statement limitation was exceeded. The SQL statement might be referencing, creating, or declaring more columns than the DB2 defined maximum number allowed for an SQL statement. Another possibility is that too many host variables are being referenced in the SQL statement.
- 003** Error in a storage suballocation request.
 - This error might have occurred because of storage constraints when building the DBRM entry for the SQL statement or because the SQL statement exceeds the DB2 maximum statement length.
- 004** Error in pointer structures.
- 005** On BIND or REBIND, a host variable was not found.
- 006** Unexpected value for parser option.
- 007** The internal limit was exceeded.
 - A fully qualified name exceeds the maximum length of 255 characters.
 - The size of a DBRM record exceeds 65536 bytes of storage.
- 008** Internal conversion error.
 - An error occurred when converting a timestamp version-id.

Severity: 16 (unrecoverable error)

System Action: The precompiler is terminated immediately.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A copy of the application program source and the printout is useful (specify SOURCE and XREF).

DSNH902I S *csectname* LINE *nnnn* COL *cc*
**SEVERE INTERNAL PRECOMPILER
 ERROR IN CONVERSION, REASON**
reason-code

Explanation: DB2 parses SQL statements in Unicode UTF-8, which is also known as CCSID 1208. DB2 will convert the application program internally (not externally) to UTF-8 for processing if an application program uses a different CCSID (for example, an EBCDIC CCSID). After processing, DB2 converts the output back to the original CCSID.

This message indicates that a severe error has occurred in DB2's internal conversion. The reason code indicates the context of this error:

- 000** Substitution occurred on conversion from the source CCSID to CCSID 1208.
- 001** The internal buffer is too small for conversion from the source CCSID to CCSID 1208.
- 002** A miscellaneous error occurred on conversion from the source CCSID to CCSID 1208.
- 003** No conversion is defined from the source CCSID to CCSID 1208.
- 004** A miscellaneous error occurred on conversion from the source CCSID to CCSID 1208.
- 005** Substitution occurred on conversion from CCSID 1208 to the source CCSID.
- 006** The internal buffer is too small for conversion from CCSID 1208 to the source CCSID.
- 007** An invalid code point was found during conversion from CCSID 1208 to the source CCSID.
- 008** Another type of invalid input character was found during conversion from CCSID 1208 to the source CCSID.
- 009** A miscellaneous error occurred during conversion from CCSID 1208 to the source CCSID.
- 010** No conversion is defined from CCSID 1208 to the source CCSID.
- 011** A miscellaneous error occurred during conversion from CCSID 1208 to the source CCSID.

Severity: 16 (unrecoverable error)

System Action: The precompiler is terminated immediately.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A copy of the application program source and the print-out is useful (specify SOURCE and XREF).

DSNH904I *csectname* U **STORAGE OVERFLOW**

Explanation: More storage is needed, but could not be obtained during precompiler/parser execution.

Severity: 16 (unrecoverable error)

System Action: The precompiler/parser is terminated immediately.

System Programmer Response: The storage required for the current statement could not be acquired or exceeds the maximum for a single request. If the region size is being used completely, check whether the region can be expanded. If it cannot be expanded, the SQL statement is too large to be processed.

DSNH1760I E *csectname* LINE *nnnn* COL *cc*.
**CREATE STATEMENT FOR STORED
 PROCEDURE *procedure-name* MUST
 HAVE A VALID LANGUAGE CLAUSE
 AND EXTERNAL CLAUSE.**

Explanation: The CREATE statement for procedure *procedure-name* must have both a valid LANGUAGE clause and a valid EXTERNAL clause.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Correct and reissue the failing statement.

DSNH4001I **HOST LANGUAGE STATEMENT
 EXCEEDS MAXIMUM OF 1000 LINES**

Explanation: A user put more than 1000 lines in a single PL/I DCL statement.

Severity: 8

System Action: Processing continues.

User Response: Split the DCL statement into two parts.

DSNH4408I E *csectname* LINE *nnnn* COL *cc* **THE
 VALUE IS NOT COMPATIBLE WITH
 THE DATA TYPE OF ITS TARGET**

Explanation: The data type of the value to be assigned to the parameter or SQL variable is incompatible with the declared data type of the assignment target. Both must be:

- Numerals
- Characters
- Graphics
- Dates or character
- Times or character
- Timestamps or character

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- Row ID's
- The same distinct types

Severity: 8 (error)

System Action: The statement cannot be processed.

User Response: Examine the current definition for the parameter or SQL variable and ensure that it has the proper data type.

DSNH4700I E *csectname* LINE *nnnn* COL *cc*
**ATTEMPT TO USE NEW FUNCTION
WITH NEWFUN NO**

Explanation: When the SQL processing option NEWFUN has a value of NO, you cannot use syntax for functions that this release of DB2 introduces. An attempt was made to use one of these functions.

Severity: 8 (error)

System Action: If the containing SQL statement is a declaration, it is discarded. If the containing SQL statement is executable, it is replaced by host language statements that will, if executed, set an error code in the SQLCA.

Programmer Response: Do one of these things:

- Restrict your program to functions that earlier releases of DB2 introduced. These functions are allowed regardless of the value of NEWFUN.
- Process your program with a value of YES for the NEWFUN option. However, you cannot BIND the DBRM until New Function Mode has been enabled.

DSNH4701I S *csectname* **OPTION: *option* OPTION
NOT PERMITTED WITH NEWFUN NO**

Explanation: You cannot use the indicated SQL processing option when the SQL processing option NEWFUN has a value of NO.

Severity: 12 (severe error)

System Action: The precompiler is terminated.

Programmer Response: To prevent this error in the future, do one of the following:

- Restrict your precompilation to options that were introduced in earlier releases of DB2. These options are valid regardless of the value of NEWFUN.
- Process your program with a value of YES for the NEWFUN option.

DSNH4702I *column* **IS NOT VALID IN THE CONTEXT
WHERE IT IS USED**

Explanation: The specified column is not a column of the table or view that was specified as the object of the UPDATE or INSERT statement.

System Action: The statement cannot be executed. No data was updated.

Programmer Response: Verify that the column and

table names are specified correctly in the SQL statement. If a correlation name is specified for a table or view, verify that subsequent table references of the table or view in qualified column names use the correlation name and not the table or view name.

SQLSTATE: 42703

DSNH4777I E *csectname* LINE *nnnn* COL *cc*
**NESTED COMPOUND STATEMENTS
NOT ALLOWED**

Explanation: An SQL procedure contains nested compound statements, which are not allowed.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Rewrite the SQL procedure body so that it does not contain nested compound statements.

DSNH4778I E *csectname* LINE *nnnn* COL *cc* END
**LABEL *label-name* NOT SAME AS
BEGIN LABEL**

Explanation: An SQL procedure statement contains an ending label and a beginning label that do not match.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Change the ending label in the statement to match the beginning label.

DSNH4779I *csectname* LINE *nnnn* COL *cc* LABEL
label **SPECIFIED *statement* IS NOT
VALID**

Explanation: In an SQL procedure, *label* is specified on a GOTO or LEAVE statement. *label* is not defined or is not a valid label for the statement.

The label on a LEAVE statement must be the label for a LOOP, REPEAT, WHILE, or compound statement.

The label in a GOTO statement must be defined within a scope that the GOTO statement can reach.

- If the GOTO statement is defined in a compound statement, *label* must be defined inside the same compound statement.
- If the GOTO statement is defined in a handler, *label* must be defined in the same handler and must follow the other scope rules.
- If the GOTO statement is defined outside a handler, *label* must not be defined within a handler.

Severity: 8 (error)

System Action: The statement cannot be processed.

User Response: Change the label in the LEAVE statement to match the label on the LOOP, REPEAT,

WHILE, or COMPOUND statement that contains the LEAVE statement.

Ensure that the label in the GOTO statement is defined within a scope that the GOTO statement can reach.

DSNH4780I E csectname LINE nnnn COL cc UNDO SPECIFIED FOR A HANDLER AND ATOMIC NOT SPECIFIED

Explanation: In an SQL procedure, a compound statement is defined as NOT ATOMIC, but the compound statement contains an UNDO handler. An UNDO handler can be used only for a compound statement that is defined as ATOMIC.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Define the compound statement as ATOMIC, or change the UNDO handler to a CONTINUE or EXIT handler.

DSNH4781I E csectname LINE nnnn COL cc CONDITION condition-name SPECIFIED IN HANDLER NOT DEFINED

Explanation: In an SQL procedure, a handler is declared for condition *condition-name*, but the SQL procedure does not contain a condition declaration statement that defines *condition-name*.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Include a condition declaration statement in the SQL procedure that relates *condition-name* to an SQLSTATE value.

DSNH4782I E csectname LINE nnnn COL cc CONDITION VALUE value SPECIFIED IN HANDLER NOT VALID

Explanation: In an SQL procedure, a condition handler is not valid for one of the following reasons:

- The handler specifies an SQLSTATE value that is not valid.
- The handler specifies duplicate conditions.
- The handler specifies SQLWARNING, SQLEXCEPTION, or NOT FOUND with other conditions.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Specify a valid condition in the handler. Ensure that a handler specifies a condition only once.

DSNH4783I E csectname LINE nnnn COL cc SELECT LIST FOR CURSOR cursor-name IN FOR STATEMENT NOT VALID

Explanation: An SQL procedure contains a FOR statement in which the select list in the cursor declaration has a column that is not valid. That column is a duplicate of another column in the select list, or the column is not named.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Ensure that all columns in the select list for a cursor declaration in a FOR statement are unique and are named. If a column of the select list is the result of a column function, specify an AS clause to name the column.

DSNH4785I E csectname LINE nnnn COL cc THE DECLARATION OR USE OF THE SQLSTATE OR SQLCODE VARIABLE IS NOT VALID

Explanation: The declaration or use of an SQLCODE or SQLSTATE special variable is not valid for one of the following reasons:

- SQLSTATE is declared with a data type other than CHAR(5).
- SQLCODE is declared with a data type other than INTEGER.
- NULL is assigned to SQLCODE or SQLSTATE.

Severity: 8 (error)

System Action: The statement cannot be processed.

User Response: Declare SQLSTATE only as CHAR(5) and SQLCODE only as INTEGER. Do not assign the null value to SQLCODE or SQLSTATE.

DSNH4911I E csectname SQL TYPE OF HOST VARIABLE IS INVALID

Explanation: SQLGALHV received a host variable with an invalid SQL data type code.

Severity: 8 (error)

System Action: The invalid host variable is ignored.

User Response: Correct the SQL data type code and register the host variable again.

DSNH4912I E csectname LENGTH OF HOST VARIABLE IS OUT OF RANGE

Explanation: SQLGALHV received a host variable with an invalid data area. The length of the data area in parameter SQL_LENGTH is either too large or too negative.

Severity: 8 (error)

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System Action: The host variable is ignored.

User Response: Correct the data area length parameter and register the host variable again.

DSNH4913I E *csectname* TOKEN IDENTIFIER HAS ALREADY BEEN USED

Explanation: The token identifier passed to SQLGALHV already exists for another host variable.

Severity: 8 (error)

System Action: The host variable is ignored.

User Response: Assign a different token identifier and register the host variable again.

DSNH4914I E *csectname* INVALID TOKEN IDENTIFIER

Explanation: The token identifier passed to SQLGALHV is invalid.

Severity: 8 (error)

System Action: The host variable is ignored.

User Response: Assign a token identifier that is a valid 4-byte integer, and register the host variable again.

DSNH4915I E *csectname* SQLGINIT HAS ALREADY BEEN INVOKED

Explanation: A call to SQLGINIT has already been made.

Severity: 8 (error)

System Action: Control is returned to caller with no other action taken.

User Response: Change the compiler or precompiler code so that SQLGINIT is only called once. The compilation or precompilation currently in progress may continue.

DSNH4916I E *csectname* SQLGINIT HAS NOT BEEN INVOKED

Explanation: A call to SQLGINIT has not been made.

Severity: 8 (error)

System Action: Control is returned to caller with no other action taken.

User Response: Change the compiler or precompiler code so that SQLGINIT is called before any of the other API entry points.

DSNH4919I E *csectname* TASK ARRAY TOO SMALL

Explanation: Precompiler Services need more task array entries than the precompiler allocated.

Severity: 8 (error)

System Action: Control is returned to caller with no other action taken.

User Response: Allocate a larger task array and make the call to SQLGCMPL again.

DSNH4920I E *csectname* TOKEN ID ARRAY TOO SMALL

Explanation: Precompiler Services needs more token identifier array entries than the precompiler allocated.

Severity: 8 (error)

System Action: Control is returned to caller with no other action taken.

User Response: Allocate a larger token identifier array and make the call to SQLGCMPL again.

DSNH4941I U *csectname* BLANK OR EMPTY SQL STATEMENT TEXT

Explanation: The SQL statement passed to SQLGCMPL was blank.

Severity: 8 (error)

System Action: Control is returned to caller with no other action taken.

User Response: Assign the SQL statement buffer to the correct parameter and call SQLGCMPL again.

DSNH4999I U *csectname* PRECOMPILER SERVICES INTERNAL ERROR

Explanation: Precompiler Services encountered an unrecoverable internal error.

Severity: 16 (unrecoverable error)

System Action: Control is returned to caller with no other action taken.

User Response: Terminate compilation or precompilation.

DSNH5011I HOST VARIABLE ARRAY *host-variable-array* IS EITHER NOT DEFINED OR IS NOT USABLE

Explanation: Host-variable-array *host-variable-array* was specified in a multiple-row FETCH or multiple-row INSERT statement. The host-variable-array is not defined or is not usable for one of the following reasons:

- The host variable is not a valid host-variable-array.
- The host variable is not a dimensioned array.
- The host-variable-array has more than 1 dimension.
- The host-variable-array defines a structure that does not conform to the rules for defining a host-variable-array.

- The dimension of the host-variable-array used for indicators is not equal to the dimension of the main host-variable-array.

System Action: The statement cannot be processed.

Programmer Response: Correct any of the following and recompile the program again. Ensure that:

- the dimension of the indicator variable array is equal to the dimension of the main host-variable-array.
- the host-variable-array is a single-dimensional array.
- the host-variable-array or host indicator variable array do not contain structures that are not permissible. The only structures that may be defined in a host-variable-array are those that are used to define variable length string host variables.

See the *DB2 Application Programming and SQL Guide* for more language-specific information on how to define the host-variable-arrays in a program.

SQLSTATE: \

DSNH5033I DECLARE VARIABLE NOT VALID FOR *variable*

Explanation: Host variable *variable* specified in a DECLARE VARIABLE statement is not valid. The DECLARE VARIABLE statement occurs after any SQL statement (in a COBOL or FORTRAN application program) or after a DECLARE CURSOR statement (in an application program in any other host language), where the SQL statement and the DECLARE VARIABLE refer to the same variable.

Severity: 8 (error)

System Action: The statement cannot be processed.

User Response: Ensure that the DECLARE VARIABLE occurs before the use of the host variable in an SQL statement in the application.

DSNH5034I DECLARE VARIABLE NOT VALID FOR *variable*

Explanation: Host variable *variable* specified in a DECLARE VARIABLE statement is not valid for one of the following reasons:

- A reference is made to a variable that does not exist.
- A reference is made to a variable that is a structure.
- A reference is made to a variable that is a component of two more structures.
- The host variable is not defined as character, varying-length character, graphic, varying-length graphic, CLOB, or DBCLOB. In this case, CLOB AS LOCATOR or DBCLOB AS LOCATOR is not considered a CLOB or DBCLOB.
- FOR BIT DATA, CCSID 65535, FOR MIXED DATA, FOR SBCS DATA is specified and the variable is defined as graphic, varying-length graphic, or DBCLOB.

- FOR BIT DATA, or CCSID 65535 is specified and the variable is defined as CLOB.

Severity: 8 (error)

System Action: The statement cannot be precompiled.

User Response: Correct the definition of the host variable. Precompile the program again.

DSNH5035I HOST VARIABLE *variable* IS SPECIFIED TWICE IN A DECLARE VARIABLE STATEMENT

Explanation: The host variable *variable* was specified in two or more DECLARE VARIABLE statements, or was specified two or more times in one DECLARE VARIABLE statement. A host variable can be specified once at most in a DECLARE VARIABLE statement.

Severity: 8 (error)

System Action: The statement cannot be processed.

User Response: Specify the host variable at most once in a DECLARE VARIABLE statement.

DSNH5036I CCSID VALUE OUT OF RANGE

Explanation: The CCSID for a DECLARE VARIABLE or CAST statement is outside the range of 1 to 65533, or the the value 65535. The value must be within the range of 1 to 65533, or the value must be 65535.

Severity: 8 (error)

System Action: The statement cannot be processed.

User Response: If this message is issued for a "DECLARE VARIABLE CCSID integer" or "CAST CCSID integer" statement, change the value to be within the range of 1 to 65533 or the value 65535. If this message is issued for a DECLARE VARIABLE statement with the "FOR SBCS DATA" or "FOR MIXED DATA" clause, then the CCSIDs specified on panel DSNTIPF at installation time need to be updated with valid values.

DSNH5037I DECLARE VARIABLE STATEMENT FOUND WITH ONE-PASS PRECOMPILE

Explanation: A DECLARE VARIABLE statement was found, but the source program is being precompiled with only one pass. If a DECLARE VARIABLE is used in an assembler source program, the ONEPASS precompiler option must not be used. If a DECLARE VARIABLE is used in a C, C++, or PL/I source program, the TWOPASS precompiler option must be used.

Severity: 8 (error)

System Action: The source program cannot be precompiled.

User Response: Specify the TWOPASS precompiler

option or, for assembler, do not specify the ONEPASS precompiler option.

DSNH20008I UNSUPPORTED OPTION *keyword*
SPECIFIED

Explanation: *keyword* is a deprecated feature that was supported in releases prior to DB2 Version 8, and is no longer supported.

For indexes, only one type is currently supported — type 2.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Correct the syntax of the SQL statement to remove reference to the unsupported keyword. Refer to the *DB2 SQL Reference* for more information.

SQLSTATE: 560A9

DSNH20060I E csectname LINE nnnn COL cc
UNSUPPORTED DATA TYPE *data-type*
ENCOUNTERED IN SQL *object-type*
object-name

Explanation: *data-type* was specified in the definition of *object-name*. *object-type* is an SQL procedure parameter or variable. *data-type* is not supported for SQL procedure parameters or variables.

You can use the same built-in data types for SQL procedure parameters or variables that you can use for the CREATE TABLE statement, except these:

- LONG VARCHAR
- LONG VARGRAPHIC
- CLOB
- DBCLOB
- BLOB
- ROWID
- distinct type

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Change the syntax to specify one of the supported data types. Instead of a LONG VARCHAR or CLOB data type, use a VARCHAR data type with an explicit length. Instead of a LONG VARGRAPHIC or DBCLOB data type, use a VARGRAPHIC data type with an explicit length.

DSNH20061I E csectname LINE nnnn COL cc
UNEXPECTED ERROR RETURNED
FROM LANGUAGE ENVIRONMENT:
REASON CODE *reason-code*, **RETURN**
CODE *return-code module-name*

Explanation: An Language Environment error occurred while the DB2 precompiler was processing an SQL procedure. The reason codes and associated return codes are:

Reason code	Meaning and associated return code
1	No PIPI token. <i>return-code</i> is the return code from the CEEPIPI(init_sub) call.
2	CEE could not be loaded. <i>return-code</i> is the return code from the CEEPIPI(add_entry) call.
3	PIPI would not terminate. <i>return-code</i> is the return code from the CEEPIPI(term) call.
4	Call to <i>module-name</i> failed. <i>return-code</i> is the return code from the CEEPIPI(call_sub) call.
5	Bad response from PIPI. <i>return-code</i> is the return code from <i>module-name</i> .

See the explanation of return codes for the appropriate CEEPIPI call in *z/OS Language Environment Programming Guide* for explanations of the Language Environment return codes.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Correct the condition that is described by *reason-code*.

DSNH20129I E csectname LINE nnnn COL cc
LOCAL SPECIAL REGISTER IS NOT
VALID AS USED

Explanation: Local special registers cannot be referenced in an assignment statement (SET or VALUES INTO) that assigns multiple values. For example, the following special registers are local: CURRENT SERVER and CURRENT PACKAGESET.

Additionally, the local special registers cannot be referenced in a SET host-variable statement that has parenthesis around the special register.

The following statements are not valid:

```
SET (:hv1) = (CURRENT SERVER);
SET (:hv1,:hv2) = (CURRENT SERVER,CURRENT
PATH);
VALUES CURRENT SERVER, CURRENT DATE
INTO :c1, :c2;
```

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Split the statement into multiple statements so that the local special registers are not referenced in a statement that assigns multiple values. Also be sure that a SET statement for a local special register does not use parenthesis on either side of the equal sign.

Chapter 10. DSNi... Messages

DSNI001I **RESTART HAS BEEN DEFERRED**
REASON reason **TYPE** type **NAME**
name

Explanation: Restart could not be performed for one or more pages of the resource identified by *type* and *name*. Those pages are placed in the logical page list (LPL) and restart for those pages is deferred. The reason code explains why restart was not performed.

Refer to Table 3 on page 1355 for an explanation of resource type codes.

System Action: DB2 restart continues. Pages for which restart activity was not performed are put into the LPL.

User Response: Correct the problem indicated by the reason code. Then use the START DATABASE command or the RECOVER utility to remove the pages from the LPL.

DSNI002I *csect-name* **UNABLE TO START**
OBJECT TYPE *object-type* **OBJECT**
NAME *object-name* **REASON** reason
TYPE type **NAME** name

Explanation: The resource identified could not be started because it was unavailable. The resource could be a database, a table space, an index space, or a partition within a table space or an index space. The 'object-type' identifies the type. The 'object-name' identifies the name. If the DB2 catalog is unavailable, 'object-type' contains binary zeros and 'object-name' contains blanks.

The resource that was unavailable is identified by 'type' and 'name'. The 'type' code identifies the type of the resource as well as the format and content of the 'name'. For an explanation of resource type codes, see "Resource types" on page 1355. The 'reason' contains the reason code explaining why the resource was unavailable.

System Action: The specified database, space, or partition is not started and remains in its current state. If there are other databases, spaces, or partitions to be started, they are processed normally.

User Response: Correct the resource unavailable problem and reissue the -START command.

DSNI003I *csect-name* **UNABLE TO STOP OBJECT**
TYPE *object-type* **OBJECT NAME**
object-name **REASON** reason **TYPE** type
NAME name

Explanation: The identified object could not be stopped because a resource required to perform the stop was unavailable. The object could be a database,

a table space, an index space, or a partition within a table space or an index space.

The 'object-type' identifies the type and 'object-name' identifies the name. If the DB2 catalog is unavailable, 'object-type' contains binary zeros and 'object-name' contains blanks.

The resource that was unavailable is identified by 'type' and 'name'. The 'type' code identifies the type of the resource as well as the format and content of the resource, 'name'. For an explanation of resource type codes, see "Resource types" on page 1355. The 'reason' contains the reason code explaining why the resource was unavailable.

System Action: The specified database, space, or partition is not stopped and remains in the current state. If there are other databases, spaces, or partitions to be stopped, they are processed normally.

User Response: Correct the resource unavailable problem and reissue the -STOP command.

DSNI004I **RESOURCE HAS BEEN STOPPED**
TYPE type **NAME** name

Explanation: The resource identified by TYPE and NAME could not be opened/closed, initialized, or was found to be in an inconsistent state. The resource has been 'stopped' by DB2. If an open error occurred during DB2 startup, restart processing for the resource was deferred.

TYPE and NAME identify the resource that has been stopped. The TYPE code identifies the type of the resource as well as the format and content of the resource, NAME.

For an explanation of resource type codes, see "Resource types" on page 1355.

System Action: The database, table space or index space is stopped by DB2.

User Response: Previous messages provide information to allow you to determine the cause of the problem and the method of correcting it. Refer to them, and correct the problem. Then restart the database, table space, or index space using the -START command; and invoke the application again.

DSNI005I *csect-name* **LPL OR GRECP RECOVERY**
CANNOT BE DONE FOR *function - ID =*
id **OBJECT TYPE** *object-type* **OBJECT**
NAME *object-name* **REASON** reason
TYPE type **NAME** name

Explanation: The resource that is identified could not be recovered during a recovery function that is identified by *function_id* because of problems during LPL or

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GRECP recovery. The resource could be a table space, an index space, or a partition within a table space or index space. *object-type* identifies the type of resource. *object-name* identifies the name of the resource.

The resource that could not be recovered is identified by *type* and *name*. The *type* code identifies the type of the resource, as well as the format and content of *name*. *reason* contains the reason code explaining why the resource could not be recovered. For an explanation of resource type codes, see "Resource types" on page 1355. *reason* contains the reason code explaining why the resource could not be recovered.

The potential values for *function* are START DATABASE COMMAND, AUTOMATIC GRECP RECOVERY, or AUTOMATIC LPL RECOVERY.

id is a decimal number that represents the recovery function that is indicated by *function*.

This message, in combination with message DSNI006I or DSNI022I, provides the LPL or GRECP recovery information for a recovery function that is identified by the *recovery-id*.

System Action: The specified space, or partition is started but remains in a LPL/GRECP state. If there are other spaces or partitions to be recovered, they are processed normally.

User Response: Correct the problem that is specified by the reason code, and reissue the -START command.

DSNI006I *csect-name* **ASYNCHRONOUS GRECP OR LPL RECOVERY IN PROGRESS FOR function - ID id TYPE type NAME name**

Explanation: This message is issued in response to a START DATABASE command, AUTOMATIC GRECP RECOVERY, or AUTOMATIC LPL RECOVERY function under the following conditions:

- When the object (table space or index space), which is identified by *type* and *name*, had group buffer pool recovery pending (GRECP) or logical page list (LPL) status, and
- Recovery was triggered.

The values for *function* could be START DATABASE COMMAND, AUTOMATIC GRECP RECOVERY, or AUTOMATIC LPL RECOVERY.

id is a decimal number that represents the recovery function.

For an explanation of resource type codes, refer to "Resource types" on page 1355 for an explanation of resource type codes.

System Action: The object is started. Also, GRECP or LPL recovery is initiated. During LPL or GRECP recovery process, message DSNI022I might be issued

periodically to indicate the recovery status. If the recovery completes successfully, message DSNI021I will appear at the end of recovery. Otherwise, message DSNI005I will indicate the error.

User Response: Wait for the DSNI021I or the DSNI005I message to be issued to the console. You can periodically issue a DISPLAY DATABASE RESTRICT command for the specified table space or index space to determine whether the GRECP or LPL exception state has been cleared.

DSNI007I *csect-name* **UNABLE TO START/RECOVER BECAUSE UNABLE TO DIRECT READ A LOG RECORD LOGRBA logrba**

Explanation: Unable to START (or RECOVER) because the necessary log records could not be accessed. Either an error occurred while attempting to allocate or open the log data set or an expected log record was not found on the log.

If the message is in response to a START command, issue the -DISPLAY command to determine which resource(s) was not started. If the message is in response to a RECOVER utility, the resource is the table space or index space that is the object of the RECOVER.

LOGRBA gives the log RBA of the log record that is unavailable.

System Action: The resource is not started (or recovered) and remains in the current state. If this is a START command, the resources are processed normally if there are other databases or spaces to be started and they do not involve reading the log.

User Response: Resubmit the utility, or reissue the START command, when the problem with the log has been resolved.

System Programmer Response: Run the print log map (DSNJU004) utility. This may be run with DB2 up or down. Find the data set that contains the requested RBA in the output of DSNJU004. If the required RBA is not in a listed data set, one of the following may have occurred:

- The data set was deleted from the bootstrap data set by a run of the change log inventory (DSNJU003) utility. In this case, rerun the utility to insert the missing data set name. DB2 must be down to run this utility.
- The bootstrap data set has been damaged. In this case, the BSDS must be restored from the dump that occurred with the most recent archive log data set. DSNJU003 must be run to supply changes that occurred during and after the last off-load operation. Changes may be determined from the operator's console listing.

If a listed log data set contains the required RBA, this message will be preceded by one or more error messages from the log manager (DSNJ). See these messages for appropriate action.

Problem Determination: Issue the -DISPLAY command to verify what got started.

**DSNI008I DATABASE VALIDATION PROCEDURE
name COULD NOT BE LOADED**

Explanation: The database validation procedure identified by 'name' could not be loaded.

User Response: Correct the name, and rerun the application.

**DSNI009I csect-name DATABASE EDIT
PROCEDURE name COULD NOT BE
LOADED**

Explanation: The database edit procedure identified by 'name' could not be loaded.

User Response: Correct the name, and rerun the application.

**DSNI010I BROKEN PAGE ACCESSED TYPE type
NAME name MODNAME csect-name
CONN-ID id CORR-ID id LUW-ID id**

Explanation: The page identified by TYPE and NAME could not be accessed, because it is marked as logically broken.

The TYPE and NAME identify the resource that is currently unavailable. The TYPE code identifies the type of the resource as well as the format and content of the resource NAME.

Type codes '00000301', '00000302', and '00000303' apply to this message. Refer to Appendix B, "Problem determination," on page 1353 for a table showing all types and names.

'csect-name' has encountered the logically broken page. CONN-ID, CORR-ID, and LUW-ID identify the thread involved in the problem. If the LUW-ID is an '*', the thread originated at this site. Correlation IDs beginning with 'Onn', where 'nn' is a number from 01 to 28, identify system agents.

User Response: If the TYPE is '00000300', use NAME to determine if the page is in an index space or a table space. Use the REPAIR utility to fix the broken page. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

**DSNI011I PAGE TEMPORARILY UNAVAILABLE
TYPE type NAME name MODNAME
modname ERQUAL erqual**

Explanation: The page identified by TYPE and NAME has been temporarily marked as logically broken to prevent access until it can be recovered.

The TYPE and NAME identify the resource that is currently unavailable. The TYPE code identifies the type of the resource as well as the format and content of the resource NAME. Refer to Table 3 on page 1355 for an explanation of resource type codes.

The module named modname has called a page checking routine, which discovered an error in the page.

The ERQUAL gives the trace id for the error in the page. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

System Action: Automatic recovery for the page has been scheduled. The current agent will abend with reason code '00C90105', and a dump will be taken. The page will be unavailable to this and other agents until the online recovery has completed successfully. Message DSNIO10I will be issued, and a 'resource unavailable' condition will be returned to any agents that attempt to access the page. If the online recovery fails, the page will be marked as broken until it is repaired or recovered (see message DSNIO12I).

User Response: Save the dump. Watch for message DSNB215I (indicating successful recovery of the page), or DSNIO12I (indicating failure of recovery of the page).

**DSNI012I PAGE LOGICALLY BROKEN TYPE type
NAME name MODNAME modname
ERQUAL erqual**

Explanation: The page identified by TYPE and NAME is logically incorrect. Additional attempts to access the page will be denied.

The TYPE and NAME identify the resource that is currently unavailable. The TYPE code identifies the type of the resource as well as the format and content of the resource NAME. Refer to Table 3 on page 1355 for an explanation of resource type codes.

The module named 'modname' has called a page checking routine, which discovered an error in the page.

The ERQUAL gives the trace id for the error in the page. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. An ERQUAL of X'0000' indicates that an abend occurred during online recovery or recover utility. The page has been marked as broken, and the recovery has failed.

System Action: The page is marked as logically broken, an 04E abend with reason code '00C90102' is issued, and a dump is taken. The page will be

unavailable to this and other agents until it is repaired.

User Response: Save the dump for analysis by IBM Support Center. Copy the table space or index space to another data set for later analysis by IBM Support Center. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Operator Response: Notify the system programmer.

System Programmer Response: See the Explanation section of this message.

DSNI013I *csect-name* **POTENTIALLY INCONSISTENT DATA REASON** *reason*
ERQUAL *erqual* **TYPE** *type* **NAME** *name*
CONN-ID *id* **CORR-ID** *id* **LUW-ID** *id*

Explanation: This message identifies a page with potentially inconsistent data. This message is issued for each page involved in the current data manager operation. The 'csect-name' in the message identifies the CSECT that issued the message.

The 'erqual' in the message identifies the specific abend in the CSECT that caused this message to be issued. This information and the reason code are used by IBM Support Center to identify the cause of the problem.

'name' and 'type' identify the page and its type. The TYPE code identifies the type, as well as the format and content, of the NAME. Refer to Appendix B, "Problem determination," on page 1353 for a table showing all types and names.

CONN-ID, CORR-ID, and LUW-ID together identify the thread involved in the problem. If the LUW-ID is an '*', the thread originated at this site. Correlation IDs beginning with '0nn' where 'nn' is a number from 01 to 28, identify system agents.

For further information, see the Explanation section for the abend reason code specified in this message.

System Action: The job is abended shortly after this message appears.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run. Save this output for use in problem determination.

System Programmer Response: See the Problem Determination section for the specific abend reason code.

Problem Determination: See the System Programmer Response section of the abend reason code specified in this message.

DSNI014I *csect-name* **DATA IN USE DURING ABEND REASON 00C90101 ERQUAL**
erqual **TYPE** *type* **NAME** *name* **CONN-ID**
id **CORR-ID** *id* **LUW-ID** *id*

Explanation: This message identifies a page that was in use at the time an abend condition occurred with reason code 00C90101. This message is issued for each page involved in the current operation.

ERQUAL identifies the specific abend in the CSECT that caused this message to be issued. This information and the reason code are used by IBM Support Center to identify the cause of the problem.

NAME and TYPE identify the page and its type. The TYPE code identifies the type, as well as the format and content, of the NAME. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

CONN-ID, CORR-ID, and LUW-ID together identify the agent involved in the problem. If the LUW-ID is an '*', the thread originated at this site. Correlation IDs beginning with '0nn' where 'nn' is a number from 01 to 28, identify system agents.

System Action: The job abends with reason code 00C90101 after this message appears.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: See abend reason code 00C90101 for more information.

Problem Determination: In general, the data in these pages is fine. However, if problems are reported that repeatedly involve the same pages or if the same pages are reported by other abends, you might want to analyze the set of pages involved.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNI015I **OBJECT name IS ALREADY STARTED FOR RW ACCESS. THE OBJECT WILL REMAIN STARTED FOR RW ACCESS**

Explanation: The -START DATABASE command with the ACCESS(FORCE) keyword was entered, but the object specified was already started for read/write access.

**DSNI016I RESOURCE TYPE type NAME name
MUST FIRST BE STOPPED BEFORE IT
CAN BE STARTED IN A DIFFERENT
ACCESS MODE**

Explanation: When issuing the -START DATABASE command on the ROSHARE OWNER system, the object to be started must first be stopped before changing access modes. For example, if a table space in a database defined as ROSHARE OWNER is started for RW access, before it can be started for RO access it must be stopped via the -STOP DATABASE command. It can then be started for RO access via the -START DATABASE command.

Severity: 8 (error)

System Action: The -START DATABASE command is not allowed to proceed.

User Response: Issue a -STOP DATABASE command to stop the object before attempting to start it.

**DSNI017I RESOURCE TYPE type NAME name IS
INCONSISTENT DUE TO ONE OR
MORE PENDING STATES**

Explanation: There are two possible reasons for this message:

- The header page of a table space, index, or partition belonging to a database defined as ROSHARE OWNER could not be marked as consistent during the processing of the STOP DATABASE command because one or more of the following was true:
 - The table space, index, or partition is in recovery pending status.
 - The table space, index, or partition is in check pending status.
 - The table space, index, or partition has pages in the logical page list (LPL).
 - The table space, index, or partition status has a utility in progress (UTUT status on the output from a DISPLAY DATABASE command).
 - The table space, index, or partition has a utility in progress that allows read-only access (UTRO on the output from a DISPLAY DATABASE command).
 - An I/O error range exists.
- A retained lock is held on the table space, index, or partition. The retained lock could be signifying a pending status.

If the STOP DATABASE command was issued without specifying the SPACENAM parameter, then one or more of the conditions stated above is true for one or more table spaces, indexes, or partitions in the specified database.

Severity: 4 (warning)

System Action: For case 1, if the STOP DATABASE

command was specified with the SPACENAM parameter, the table space, index, or partition is stopped. DB2 does not allow access to an inconsistent table space, index, or partition by any ROSHARE READ system.

For case 2, no access to an inconsistent table space, index, or partition is allowed until the retained lock is released by the failed system at completion of its restart.

User Response: Issue a DISPLAY DATABASE command to display the status of the object in question. Resolve the pending states and then reissue the STOP DATABASE command to ensure that the consistency indicator is reset.

**DSNI018I UNABLE TO GET LOCK FOR
RESOURCE TYPE type NAME name.
WILL RETRY TO GET LOCK.**

Explanation: The resource identified by 'type' and 'name' could not be locked because of lock contention. The lock request is made again for this resource.

The 'type' and 'name' identify the resource trying to get a lock. The 'type' code identifies the type of resource as well as the format and content of the resource 'name'.

Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

Severity: 0 (informational)

System Action: The lock request is made again for the specified resource.

**DSNI019I THE STOP COMMAND FOR OBJECT
name WAS OVERRIDDEN BY A START
FORCE. THE STOP COMMAND IS
IGNORED.**

Explanation: The object identified by 'name' was not stopped because a START FORCE command on this object was subsequently issued and processed.

This message is informational only.

Severity: 0 (informational)

System Action: The object is not stopped.

**DSNI020I csect-name UNABLE TO DRAIN
RESOURCE TYPE type NAME name.
WILL RETRY DRAINING THE
RESOURCE.**

Explanation: The resource identified by 'type' and 'name' could not be drained. The 'type' code identifies the type of resource as well as the format and content of the resource 'name'. The drain request is made again for this resource.

Refer to Table 3 in Appendix B, "Problem determination," on page 1353

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on page 1351 for an explanation of resource type codes.

System Action: The drain request is made again for the specified resource.

DSNI021I *csect-name* **GRECP OR LPL RECOVERY FOR *function* - ID = *id* TYPE *type* NAME *name* HAS COMPLETED SUCCESSFULLY.**

Explanation: The group buffer pool recovery pending (GRECP) or logical page list (LPL) exception state of the table space or index space has been cleared. The table space or index space can be identified by *type* and *name*.

The potential values for *function* are START DATABASE COMMAND, AUTOMATIC GRECP RECOVERY, or AUTOMATIC LPL RECOVERY.

id is a decimal number that represents a recovery function.

Refer to "Resource types" on page 1355 for an explanation of resource type codes.

This message is always preceded by the DSNI006I message, which indicates the beginning of the LPL or GRECP recovery for the object.

System Action: The identified table space or index space is started normally.

DSNI022I *csect-name* **LPL or GRECP RECOVERY LOG APPLY FOR *function* - ID = *id* AT LOGPOINT *xxx* TO LOGPOINT *yyy***

Explanation: This message periodically shows the progress of the LPL or GRECP recovery of a START DATABASE command, AUTOMATIC GRECP RECOVERY, or AUTOMATIC LPL RECOVERY.

The potential values for *function* are START DATABASE COMMAND, AUTOMATIC GRECP RECOVERY, or AUTOMATIC LPL RECOVERY.

id is a decimal number that represents a recovery function.

xxx is the LOGPOINT of the log record currently being processed. *yyy* is the LOGPOINT of the last log record that will be applied in this recovery. The value of logpoint is RBA in a non-data sharing environment and LRSN in a data sharing environment.

This message, in combination with message DSNI006I, DSNI005I, or DSNI021I, provides the LPL or GRECP recovery information for the recovery function that is identified by *function*.

System Action: The LOGAPPLY phase continues normally.

DSNI023I *csect-name* **PAGE SET *dbnam.psnam* PART *part* IS RESTP ON BEHALF OF UR *urid*. BACKOUT TO RBA *rba* IS REQUIRED.**

Explanation: 'Status' is either RESTP (Restart Pending) or AREST (Advisory Restart Pending). This message indicates that the named UR has backout work pending against the named page set or partition. The backout work for this UR against this page set or partition will be complete once backward processing of the log reaches the identified RBA.

For non-partitioned page sets, the partition given in the message is the string *n/a*.

DSNI024I *csect-name* **BACKOUT PROCESSING IS COMPLETE FOR PAGE SET *dbnam.psnam* PART *part*.**

Explanation: This message indicates that backout processing is complete for the named table space, index space, or partition. If the object was in restrictive *restart pending* state, that state is lifted. If the object was in an *advisory restart pending* state, locks held on the object on behalf of postponed abort URs by the DB2 member issuing the message are released. The advisory restart pending state is lifted if the DB2 member issuing the message is the only member still contributing to the state.

For non-partitioned page sets, the partition given in the message is the string "n/a".

DSNI025I *csect-name* **THE FAST LOG APPLY PROCESS REQUIRES *aaaaaaaa* BYTES OF STORAGE, BUT GOT ONLY *bbbbbbbb* BYTES**

Explanation: The Fast Log Apply process could not obtain all the required storage. However, the storage acquired is enough for the Fast Log Apply process to continue.

Severity: 0 (informational)

System Action: The Fast Log Apply process continues with the smaller amount of storage for the log buffers.

DSNI026I *csect-name* **THE FAST LOG APPLY PROCESS IS DISABLED BECAUSE ALL OF THE ALLOWABLE STORAGE IS EXHAUSTED**

Explanation: There is no *ssnmDBM1* storage available for the Fast Log Apply process to use. There are too many jobs (RECOVER or -START DB command) running in parallel.

Severity: 0 (informational)

System Action: The recovery of the requested objects continues without the Fast Log Apply process.

DSNI027I *csect-name* **THE FAST LOG APPLY PROCESS IS DISABLED BECAUSE IT IS UNABLE TO ACQUIRE THE MINIMUM REQUIRED STORAGE**

Explanation: There is not enough ssnmDBM1 storage available or reserved for the Fast Log Apply process to use.

Severity: 0 (informational)

System Action: The recovery of the requested objects continues without the Fast Log Apply process.

DSNI028I *csect-name* **THE NUMBER OF QUALIFIED LOG RECORDS READ DURING THE FAST LOG APPLY PROCESS IS *log-records* AND THE NUMBER OF FAST LOG APPLY BUFFERS PROCESSED ARE *fla-buffers***

Explanation: This informational message is issued during the Fast Log Apply process. *log-records* indicates the number of log records that have been applied during the Fast Log Apply process. *fla-buffers* indicates the number of buffers used by the Fast Log Apply process.

Severity: 0 (informational)

DSNI029I *csect-name* **THE FAST LOG APPLY PROCESS IS ACTIVE AND THE AVAILABLE *ssnmDBM1* STORAGE IS *bytes* BYTES**

Explanation: This informational message is issued during the Fast Log Apply process for member *ssnm*. There is sufficient storage for the Fast Log Apply process to continue, and the remaining amount of available storage is displayed in hexadecimal as *bytes*.

Severity: 0 (informational)

DSNI030I *csect-name* **BACKOUT PROCESSING IS CONTINUING BEYOND THE REQUESTED LIMIT DUE TO CATALOG OR DIRECTORY ACTIVITY OF UR *urid*.**

Explanation: The number of log records requested to be processed during restart's backward phase have been processed. Under other circumstances further backout processing would be postponed. However, because the indicated UR has catalog or directory updates that are not backed out yet (and because backout against catalog or directory page sets cannot be postponed), backout processing is continuing. It will continue until this UR's backout is complete.

System Action: Backout processing continues.

DSNI031I *csect-name* - **LOCK ESCALATION HAS OCCURRED FOR RESOURCE NAME = *name*, LOCK STATE = *state*, PLAN NAME : PACKAGE NAME = *id1:id2*, COLLECTION-ID = *id11*, STATEMENT NUMBER = *id3*, CORRELATION-ID = *id4*, CONNECTION-ID = *id5*, LUW-ID = *id6*, THREAD-INFO = *id7:id8:id9:id10***

Explanation: Lock escalation balances concurrence with performance by using page locks while a process accesses relatively few pages, then changing to table space or table locks when the process accesses a number of pages that exceeds a defined threshold (LOCKMAX) for the tablespace.

name The name of the escalated resource. The format of *name* depends on the type of table space. For simple or partitioned table spaces, the format is *database-name.tablespace-name*. For a segmented table space, the format is *creator-name.table-name* (or DBID.OBID of the table).

state The lock state (after escalation) of the escalated resource.

id1 The name of the executing plan associated with this thread.

id2 The name of the executing package (if any) associated with this thread.

id3 The statement number of the executing SQL statement associated with this plan.

id4 The correlation identifier of the thread associated with the escalated resource.

id5 The connection identifier of the thread associated with the escalated resource.

id6 The logical-unit-of-work identifier of the thread associated with the escalated resource.

id7 Thread Info - the primary authorization_id associated with the thread.

id8 Thread Info - Work station name of the end user's work station. An asterisk (*) indicates that it is not relevant to the thread or was not provided by the client.

id9 Thread Info - User-Id of the end user. An asterisk (*) indicates that it is not relevant to the thread or was not provided by the client.

id10 Thread Info - Application name of the end user's application. An asterisk (*) indicates that it is not relevant to the thread or was not provided by the client.

id11 The collection-id of the package (if any). resource.

System Action: Escalation has occurred for the specified object

DSNI032I *csect-name* **CANCEL THREAD NOBACKOUT COMMAND FAILED FOR THE THREAD = *token* REASON = *reason***

Explanation: DB2 displays this message when it cannot grant a request to cancel a thread without backing out data changes. The reason code explains why the request was rejected.

token Identifies a thread whose processing you requested to cancel. The token is a 1- to 15-digit decimal number.

reason Indicates the reason why the command failed.

System Action: Processing terminates normally.

User Response: The reason code specifies the action to be taken.

DSNI033I *csect-name* **PAGE SET *dbname.psname* PART *part* IS MARKED REFP AND *status* ON BEHALF OF UR *ur-id*. RECOVERY TO *logout* IS REQUIRED.**

Explanation: No further backout processing will be attempted on the specified page set or partition because backout for unit of recovery *ur-id* has been cancelled. The specified page set or partition is marked Refresh pending (REFP).

Severity: 0 (informational)

User Response: If the object in Refresh pending status is a table space, you can resolve the REFP,LPL state of the specified page set or partition in more than one way. You can run the RECOVER utility to perform point-in-time recovery, or run the LOAD utility with the REPLACE option to resolve the REFP,LPL state.

If page set is an index space, run the REBUILD utility to perform point-in-time recovery and resolve the REFP,RBDP or REFP,LPL status. You can use the RBA;LRSN value indicated in this message for point-in-time recovery.

DSNI034I *csect-name* **TABLE SPACE *table-space-name* IS IN AUX WARNING STATE**

Explanation: DB2 attempted to recover table space *table-space-name*, but no log records exist because the table space was created with the LOG NO option. The table space is placed in an auxiliary warning state. You can use SQL statements to update the LOB values that are in error or to delete the row that contains the LOB values. In addition, you can use SQL statements to access valid LOBs. However, you cannot use SQL statements to retrieve a LOB value that is not valid.

Severity: 0 (informational)

System Action: DB2 marks the LOB values that are in error as not valid. Processing continues.

Programmer Response: Use SQL statements to update or delete the LOB values in error. Use the CHECK LOB utility to verify that all errors were corrected and to reset the auxiliary warning state. The auxiliary warning state can also be reset using the REPAIR utility with SET NOAUXWARN.

DSNI035I *csect-name* **THE REAL-TIME STATISTICS COLLECTION PROCESS IS STOPPED**

Explanation: The statistics database stopped successfully, and the real-time statistics process is halted.

Severity: 0 (informational)

System Action: DB2 will not externalize in-memory statistics.

DSNI036I *csect-name* **THE REAL-TIME STATISTICS COLLECTION PROCESS IS DISABLED**

Explanation: An error prevents DB2 from externalizing the in-memory statistics. The error is generally a persistent error and must be remedied before the process can be enabled. Look for prior messages to identify the nature of the problem.

System Action: The statistics database is implicitly stopped and no further attempt will be made to externalize the in-memory statistics.

Operator Response: Notify the system programmer.

System Programmer Response: Inspect the console for prior messages and refer to those messages for problem determination.

DSNI037I *csect-name* **THE REAL-TIME STATISTICS COLLECTION PROCESS COULD NOT ACCESS AN OBJECT IN THE REAL-TIME STATISTICS DATABASE**

Explanation: An error prevents DB2 from externalizing the in-memory statistics. An attempt failed to insert, update, or delete a row in the statistics database. The error is generally transient (lock time-out or resource unavailable). If the operation is retried, it is likely to succeed.

System Action: The statistics are kept in-memory until the next opportunity to externalize them.

DSNI038I *csect-name* **THE REAL-TIME STATISTICS COLLECTION PROCESS IS ENABLED**

Explanation: The statistics database started successfully. The required object descriptors in the statistics database exist and have the correct attributes.

DB2 proceeds to externalize in-memory statistics for all modified objects.

Severity: 0 (informational)

System Action: The database is started R/w.

DSNI041I *csect-name* **START ACCESS(FORCE)
CANNOT BE ISSUED AGAINST
TARGET** *obj-type obj-qual.obj-name part*
**DUE TO STOPPED UTILITIES ON
VERSION** *version-number*. **REQUEST IS
REJECTED.**

Explanation: The object cannot be started due to outstanding utilities on a different version. The status of the object is unchanged.

version-number is the version on which the utility was running.

obj-type is table space or index space.

obj-qual is the database name.

obj_name is the table space or index space name.

part represents the partition number for a partitioned table space.

System Action: The request is rejected.

User Response: Use the DISPLAY UTILITY command to see what utilities are outstanding. Issue the -START DATABASE ACCESS(FORCE) command on the same version as the version on which the stopped utility was running. If there is more than one utility outstanding on the object and the utilities were submitted on a different release of DB2, start the correct version of DB2 and use the -TERM UTILITY command to terminate each utility.

Chapter 11. DSNJ... Messages

DSNJ001I *csect-name* **CURRENT COPY *n* ACTIVE LOG DATA SET IS DSNNAME=..., STARTRBA=..., ENDRBA=...**

Explanation: This message is generated for one of two reasons:

1. When the log manager is initialized, it sends this informational message to identify the current active log data sets (copy-1 and, if dual logging is used, copy-2).
2. When the current active log data set is full, DB2 will switch to the next available active log data set. This message identifies the next available active log data set which will be used for logging.

The value specified by the STARTRBA=value keyword is the RBA of the first byte of log data in the named data set. The value specified by the ENDRBA=value keyword is the RBA of the last possible byte in the data set. These values may later be needed for a conditional restart.

System Programmer Response: None required. However, if recovery is required, information from this message may be required as input to the change log inventory (DSNJU003) utility.

DSNJ002I **FULL ACTIVE LOG DATA SET DSNNAME=..., STARTRBA=..., ENDRBA=...**

Explanation: This message is sent at the time the log manager fills an active log data set and switches to a new empty data set. The message shows the name and log RBA range of the full data set.

System Programmer Response: None required. However, if recovery is required information from this message may be required as input to the change log inventory (DSNJU003) utility.

DSNJ003I *csect-name* **FULL ARCHIVE LOG VOLUME DSNNAME=..., STARTRBA=..., ENDRBA=..., STARTxxx=..., ENDxxx=..., UNIT=..., COPYnVOL=..., VOLSPAN=..., CATLG=...**

Explanation: Offloading for the specified archive log data set was successfully completed for the given volume. If the data set spans multiple tape volumes, this message is generated for each tape volume. If the data set spans multiple dasd volumes, only one message will be generated displaying the first VOLSER appended with a '+' to indicate the data set spans multiple volumes. 'xxx' is replaced by either TIME or LRSN.

System Action: An archive log data set has been created, and the archive log data set inventory in the

bootstrap data set (BSDS) has been updated with the information in the message:

DSNAME

The name of the archive log data set.

STARTRBA

The starting RBA contained in the volume.

ENDRBA

The ending RBA contained in the volume.

STARTLRSN

The starting LRSN contained in the volume for data sharing systems.

ENDLRSN

The ending LRSN contained in the volume for data sharing systems.

STARTTIME

The starting store-clock value of the log records in the volume for non-data sharing systems.

ENDTIME

The ending store-clock value of the log records in the volume for non-data sharing systems.

UNIT

The device unit to which the data set was allocated.

COPYnVOL

The name of the volume. This message keyword is displayed as COPY1VOL if this is the copy-1 archive log data set, and as COPY2VOL if this is the copy-2 archive log data set.

VOLSPAN

An indicator to denote one of four conditions:

- If '00', the data set is entirely contained on the volume specified by 'COPYnVOL'.
- If '01', this is the first entry of a multivolume data set.
- If '11', this is the middle entry of a multivolume data set.
- If '10', this is the last entry of a multivolume data set.

CATLG An indicator to denote one of two conditions:

- If 'NO', the archive log data set is uncataloged.
- If 'YES', the archive log data set is cataloged.

The BSDS is automatically updated with the information contained in this message; however, if recovery is required, information from this message may be required as input to the change log inventory (DSNJU003) utility.

DSNJ004I **ACTIVE LOG COPY *n* INACTIVE, LOG IN SINGLE MODE, ENDRBA=...**

Explanation: This message is sent when the dual active logging option is selected and copy 'n' becomes inactive. A log copy becomes inactive when the next active log data set is not ready when required. ENDRBA

is the last byte of log data written on copy 'n'. This is usually caused by a delay in off-load.

System Action: The log is switched to single mode until the next data set for copy 'n' is ready for logging.

If DB2 is shut down or abends while in single mode with the ZPARM option still set for dual active data sets, the previous state of the active log data sets determines what happens when DB2 is started, as follows:

- If fewer than two data sets are available (not flagged as STOPPED) for each set of active logs, DB2 startup terminates and message DSNJ112E is issued.
- If an active log data set is in NOTREUSABLE state, DB2 can be started in single logging mode, but dual mode takes effect when the other active log data set becomes available after offloading.

Operator Response: Execute an MVS *Display System Requests* command (D R,L for example) to ensure that there are no outstanding requests that are related to the log off-load process. Take the necessary action to satisfy any requests, and permit off-load to continue.

System Programmer Response: If the switch to single mode was caused by the lack of a resource required for off-load, the necessary resource should be made available to allow off-load to complete and thus permit dual logging to proceed. If recovery is required, information from this message might be required as input to the change log inventory (DSNJU003) utility.

DSNJ005I ACTIVE LOG COPY n IS ACTIVE, LOG IN DUAL MODE, STARTRBA=...

Explanation: This message is sent when copy 'n' of the log becomes active after previously being flagged as inactive. STARTRBA is the RBA of the first byte of log data written on copy 'n' after it was activated.

System Programmer Response: None required. However, if recovery is required, information from this message may be required as input to the change log inventory (DSNJU003) utility.

DSNJ006I ALLOCATION FOR NEW ARCHIVE LOG DATA SET HAS BEEN CANCELLED BY OPERATOR.

Explanation: This message is sent if the operator answers 'N' to the WTOR message DSNJ008E.

System Action: If the allocation is for copy 1 archive log data set, off-load terminates processing until the next time it is activated. If copy 1 has already been allocated and this request is for copy 2, off-load switches to single off-load mode for this data set only.

DSNJ007I csect-name OPERATOR CANCELED MOUNT OF ARCHIVE VOL SER= volser

Explanation: If the operator answers 'N' to the WTOR message DSNJ009I, this message is issued. The variable 'volser' is the volume serial of an archive log volume required for the read request.

System Action: The read request for the archive log volume fails. If the request was issued with the COND=YES parameter, return code 12 and reason code 00D1032B are returned to the requester. Otherwise, DB2 abends with reason code 00D1032B.

DSNJ008E nn OF mm ACTIVE LOGS ARE FULL. ssname NEEDS ARCHIVE SCRATCH. REPLY Y WHEN DEVICE READY OR N TO CANCEL.

Explanation: The installation has requested a WTOR before archive log data set allocation. DB2 needs a scratch volume for offloading an active log data set. 'ssname' is the name of the DB2 subsystem. 'nn' is the number of full active log data sets. 'mm' is the total number of active log data sets.

System Action: The off-load task waits for the operator's reply.

Operator Response: The operator has three options:

- Get a scratch volume ready, make sure there is an available unit for the volume, and reply 'Y'. DB2 then continues with the off-load.
- Determine from the number of active log data sets available whether the off-load can be delayed until the next time an active log data set becomes full. If the process can be delayed, then reply 'N'. This response has two possible effects.
 - If dual archive logging is in effect and this allocation is for a copy 1 archive data set, the 'N' response delays the off-load process until the next active log data set becomes full.
 - However, if the copy 1 archive data set has already been allocated and this request is for copy 2, the 'N' response causes the off-load to switch to single archive mode (the switch is for this data set only).
- Defer giving a response. This causes off-load to wait before processing. However, because off-load is a separate service task, the wait does not affect DB2 performance.

If offloading to DASD, an error has occurred attempting to allocate an archive log data set. Reply 'Y' to receive the error messages.

DSNJ009E **ssname NEEDS VOL SER=nnnnnn.**
REPLY Y TO CONTINUE OR N TO
CANCEL

Explanation: The installation requested WTOR before archive log data set allocation. DB2 needs the specified archive volume for a read operation. The subsystem name is 'ssname'.

System Action: The archive log read service task waits for the operator's reply. This wait affects the agent for which the log read was issued and any other agents that might be waiting on the log read service task queue.

Operator Response: Locate the requested volume, ensure that a device is available, and reply 'Y'. DB2 continues with dynamic allocation and then begins reading the log.

If dual archiving is in effect, a response of 'N' causes archive read to reissue the message for the copy 'Z' copy 2 archive VOLSER with the same RBA range. A response of 'N' to this second WTOR, or to the initial WTOR for single archiving, causes the archive read service task to fail with unpredictable results.

DSNJ010I *csect-name* **INVALID RESPONSE. WTOR**
WILL BE REPEATED.

Explanation: A WTOR was issued during archive data set allocation. The user did not respond correctly to the message. Either 'Y' or 'N' must be entered.

System Action: The original WTOR is repeated.

Operator Response: Reply as indicated in the repeated message.

DSNJ011I **CONDITIONAL RESTART RECORD rrr**
CREATED AT WAS FOUND. REPLY
Y TO USE, N TO CANCEL

Explanation: When the log manager was initialized, a conditional restart control record was found in the bootstrap data set. Both the record identifier (a 4 byte hexadecimal number) and the creation time stamp (yy.ddd hh:mm) are displayed to help identify the conditional restart record which will be used. If you want a conditional restart using that record, reply 'Y' to the message. Otherwise, reply 'N' and notify the system programmer.

System Action: If 'Y' is the response, DB2 is started conditionally, using the record found. If 'N' is the response, DB2 startup is terminated.

Operator Response: If a DB2 conditional restart is to be done and if the date and time displayed are correct, then reply 'Y' to the outstanding message. If you are not sure, then contact the system programmer.

System Programmer Response: If a normal restart of DB2 has failed and you have created a conditional restart control record with the change log inventory

(DSNJU003) utility, check whether the time and date in the message agree with when you created that record. If they do, reply 'Y' to the outstanding WTOR. If they do not, reply 'N' and investigate the discrepancy.

DSNJ012I **ERROR ccc READING RBA rrr IN DATA**
SET ddd CONNECTION-ID=xxxxxxx,
CORRELATION-ID=yyyyyyyyyyy

Explanation: While scanning log records read into a buffer, the log manager detected a logical error with reason code 'ccc'. 'rrr' is the log RBA of the segment in the buffer at which the error was detected. 'ddd' is the name of the active or archive log data set from which the record was read. If 'ddd' is blank, the data was read from an active log output buffer.

The connection and correlation IDs identify the user or application that encountered the problem. Messages that have the same connection ID and correlation ID relate to the same user. Correlation IDs beginning with '0nn' where 'nn' is a number from 01 to 28, identify system agents.

Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.

System Action: The application program that invoked the log manager is terminated with reason code 'ccc'. However, information in this message may be useful in diagnosing the abend that will follow.

DSNJ013I **TERMINAL ERROR ccc IN BUFFER rrr**
BEFORE ACTIVE LOG WRITE

Explanation: A scan of the log output buffer just prior to writing the buffer detected an inconsistency in the log data. 'ccc' is the abend reason code associated with the SDUMP that is produced. 'rrr' is the log RBA at which the error was detected.

System Action: DB2 will terminate with a dump, and will not write the damaged buffer to either COPY 1 or COPY 2 active log data set.

Operator Response: Notify the system programmer. Start DB2 after it terminates.

System Programmer Response: Because the damaged buffer has not been written to a log data set, DB2 may be restarted. No corrective action is required.

Problem Determination: In the DB2 formatted block section of the dump, locate the chain of LBCE blocks. Those are log buffer control elements, and each LBCE controls one 4KB log output buffer. LBCEBUFF, at offset X'20' in the LBCE, points to the buffer, which is always on a 4KB boundary. The log RBA of the first byte of the buffer is in a 6-byte field at offset X'FF2' in the buffer itself. The layout of the buffer is described by the DSNDLCID mapping macro. The header of each record within the buffer is described by the DSNDLRH mapping macro. Locate the buffer that contains the log RBA from the message and find the damage by referring to the

description of the reason code later in this book.

**DSNJ014I TERMINAL ERROR ccc IN BUFFER rrr
AFTER ACTIVE LOG WRITE.**

Explanation: A scan of the log output buffer, after writing to the COPY 1 active log data set and before writing to COPY 2, detected an inconsistency in the log data. 'ccc' is the abend reason code associated with the SDUMP that is produced. 'rrr' is the log RBA at which the error was detected.

System Action: DB2 will terminate with a dump, and will not write the damaged buffer to the COPY 2 data set.

Operator Response: Notify the system programmer.

System Programmer Response: The block containing the indicated log RBA may be damaged. The buffer was found to be in error at the completion of the write to the COPY 1 data set of the active log.

If dual active logs are being used, use print log map (DSNJU004) to list the active log data sets for both copies of the active log. Find the COPY 2 data set with the corresponding RBA, and copy that data set (using access method services REPRO) to the COPY 1 data set. Start DB2.

If only a single active log is used, contact the IBM support center for assistance. An attempt to start DB2 may succeed if the damage to the buffer occurred after completion of the write to DASD.

Problem Determination: In the DB2 formatted block section of the dump, locate the chain of LBCE blocks. Those are log buffer control elements, and each LBCE controls one 4KB log output buffer. LBCEBUFF, at offset X'20' in the LBCE points to the buffer, which is always on a 4KB boundary. The log RBA of the first byte of the buffer is in a 6-byte field at offset X'FF2' in the buffer itself. The layout of the buffer is described by the DSNLDCID mapping macro. The header of each record within the buffer is described by the DSNDLRH mapping macro. Locate the buffer that contains the log RBA from the message and find the damage by referring to the description of the reason code later in this book.

**DSNJ015I CSRONLY PROHIBITS LOG
ALTERATIONS. RECORD rrr CREATED
.... REPLY Y TO USE, N TO CANCEL.**

Explanation: During DB2 startup, the log manager found an inactive conditional restart control record in the bootstrap data set. Because this control record indicates CSRONLY, no log data sets will be modified. If log truncation was specified, it will be simulated. Only the first phase of restart (current status rebuild) will be performed. The hexadecimal identifier (rrr) and creation timestamp (yy.ddd hh:mm) identify the record found.

System Action: A 'Y' reply will continue the conditional restart. A 'N' reply will terminate DB2 startup.

Operator Response: To continue this CSRONLY processing, reply 'Y' to this message. If you are not sure, contact the system programmer.

System Programmer Response: The conditional restart control record will not be deactivated at the end of the CSRONLY processing. To deactivate this record, either cancel this record or create a new record. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for more information.

**DSNJ016E csect-name WARNING - SYSTEM
CHECKPOINT PROCESSOR MAY HAVE
STALLED. LAST CHECKPOINT WAS
TAKEN date-time.**

Explanation: While switching active log data sets, DB2 found that there has not been a system checkpoint taken since the last time DB2 switched active log data sets. *date-time* is the date and time of the last system checkpoint. There should be at least one system checkpoint on each log data set.

System Action: DB2 continues processing. If statistics class 3 is active, IFCID 0335 is written. This message will be deleted when a system checkpoint is taken.

System Programmer Response: This may be an indication that the system checkpoint processor may no longer be functioning. This situation can result in a very long restart if logging continues without a system checkpoint. You should monitor system checkpoint activity very closely. You can use the -DISPLAY LOG command or run the Print Log Map utility (DSNJU004) to display the most recent checkpoint. If DB2 continues logging beyond the defined checkpoint frequency, you should quiesce activity and terminate DB2 to minimize the restart time.

Prior to terminating DB2, obtain a dump of the DB2 address spaces for problem determination.

**DSNJ017E csect-name WARNING - OFFLOAD
TASK HAS BEEN ACTIVE SINCE
date-time AND MAY HAVE STALLED.**

Explanation: While switching active log data sets, DB2 found that the offload task has been active since the last time DB2 switched active log data sets. The offload task began archiving an active log data set at *date-time*.

System Action: DB2 continues processing. If statistics class 3 is active, IFCID 0335 is written. This message will be deleted when the offload task completes the archive process.

System Programmer Response: This may be an indication that there may be an outstanding tape mount request or that the offload task may no longer be functioning. This situation can result in a log-full situation if DB2 can not archive log data sets when they fill. You should reply to any tape mount requests and monitor offload activity very closely. You can issue the

-DISPLAY LOG command to display the status of the offload task, and the -ARCHIVE LOG CANCEL OFFLOAD command can be used to terminate and restart the offload process.

Prior to terminating the offload task, obtain a dump of the DB2 MSTR address space for problem determination.

DSNJ020I *csect-name* **RECEIVED REPLY OF N TO msg-num. SUBSYSTEM STARTUP IS TERMINATED.**

Explanation: The operator chose to terminate DB2 startup by answering 'N' to 'msg-num'.

System Action: DB2 will not restart.

Operator Response: To restart DB2, follow the 'operator response' of 'msg-num'.

DSNJ030I **RBA RANGE startdba TO enddba NOT AVAILABLE IN ACTIVE LOG DATA SETS**

Explanation: Previous errors have made the active log data set(s) that contain the relative byte address (RBA) range reported in the message unavailable to DB2. The status of these log(s) is STOPPED in the bootstrap data set (BSDS).

System Action: DB2 terminates with a dump.

Operator Response: Notify the system programmer.

System Programmer Response: The log RBA range must be available for DB2 to be recoverable. Correct previous errors and restore the active log data set(s) that contain the RBA range reported in the message.

- If the log data set(s) are recoverable, the active log data set inventory in the BSDS must be modified to reset the STOPPED status. Use the print log map (DSNJU004) utility to obtain a copy of the BSDS log inventory. Next, use the change log inventory (DSNJU003) utility to delete the active log data sets marked STOPPED (use the DELETE statement), and then add them again (use the NEWLOG statement). The starting and ending RBA for each active log data set must be specified on the NEWLOG statement when the log(s) are added back to the BSDS using the DSNJU003 utility.
- If the log data set(s) are not recoverable, it is necessary to conditionally restart DB2. See Part 4 (Volume 1) of *DB2 Administration Guide* for additional information on conditional restart and recovering from log failures.

Problem Determination: Examine previous messages to determine the reason the active log data set(s) are unavailable to DB2.

DSNJ031I *csect-name* **WARNING - UNCOMMITTED UR HAS WRITTEN nn LOG RECORDS - CORRELATION NAME = xxxxxxxxxxxx CONNECTION ID = yyyyyyyy LUWID = LOGICAL-UNIT-OF-WORK-ID=token PLAN NAME = xxxxxxxx AUTHID = xxxxxxxx END USER ID = xxxxxxxx TRANSACTION NAME = xxxxxxxx WORKSTATION NAME = xxxxxxxx**

Explanation: This message indicates that a unit of recovery (UR) reached the threshold number of log records written without a COMMIT or ROLLBACK. This threshold was defined during installation.

The value *nn* is cumulative, and indicates the number of log records that were written since the beginning of the UR.

CORRELATION name, CONNECTION ID, and LUWID together identify a thread associated with the UR. *token* is a unique token number associated with the LUWID. If the LUWID is an '*', it indicates that the thread originated at this site.

PLAN NAME and AUTHID further identify the thread associated with the UR.

If the thread's creator included End User information, then DB2 displays the End User's ID, TRANSACTION NAME, and WORKSTATION NAME. Otherwise, these fields will contain an '*'.

System Action: DB2 continues processing. If statistics class 3 is active, IFCID 0313 is written. This message will be repeated each additional time the threshold is reached.

System Programmer Response: Consult with the application programmer to determine if this is a problem UR. See Part 4 (Volume 1) of *DB2 Administration Guide* for more information about problems caused by uncommitted UR's.

If an application program caused the UR to reach its threshold number of log records, you can use CANCEL THREAD to cancel the UR. If you cancel an uncommitted UR, DB2 will undo the changes. The amount of time required for this process depends on the amount of work done by the UR. The amount of time required for this process depends on the amount of work done by the UR.

Programmer Response: Ensure that the application commits frequently enough, or consult with your DB2 administrator about decreasing the frequency of the check.

DSNJ050I **LOAD MODULE DSNJL003 DOES NOT HAVE RMODE(24) ATTRIBUTE**

Explanation: The named load module was not link edited with the required RMODE(24) attribute.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer of the failure.

System Programmer Response: Verify that all installation and maintenance activities against this module were executed using SMP. Verify that the JCLIN for SMP includes the correct RMODE control statement, and that the Linkage Editor provided with the Data Facility Product (DFP) for the version of MVS being used was invoked by SMP for the link edits. Correct the procedure or JCL which caused the error and rerun the necessary SMP jobs.

Problem Determination: The MVS service aid AMBLIST provides Linkage Editor module attributes in the summary section of the LISTLOAD function output.

DSNJ070I *csect-name* **ARCHIVE LOG DSN PREFIX NOT IN PROPER FORMAT TO RECEIVE TIMESTAMP DATA. TIMESTAMPING OF *dsname* BYPASSED**

Explanation: By way of a ZPARM parameter, the user has specified that the date and time of creation of an archive log data set be included as part of the archive log data set name (DSN). To accomplish this, the DB2 subsystem requires that the length of the archive log data set name prefix not exceed 19 characters if using the standard DATE format (YYDDD), or 17 characters if using the extended DATE format (YYYYDDD). If the prefix requirement is not met, this message is issued just prior to the allocation of the archive log data set specified in the message.

System Action: The archive log data set will be allocated using the archive log prefix. However, the archive log DSN will not contain the date and time as the user requested.

Operator Response: Notify the system programmer.

System Programmer Response: The ZPARM parameters for the log archive function must be changed. Specifically, the TSTAMP and ARCPFXn fields are not consistent with one another. For details concerning the course of action required to eliminate this problem, refer to Part 2 of *DB2 Installation Guide*, under the DSNTIPH panel and DSN6ARVP macro subtopics.

DSNJ071I *csect-name* **TIMER FAILURE CAUSED TIMESTAMPING OF ARCHIVE *dsname* TO BE BYPASSED**

Explanation: By way of a ZPARM parameter, the user has specified that the date and time of creation of an archive log data set be included as part of the archive log data set name (DSN). However an attempt to get the current date and time from the system failed. This message is issued just prior to the allocation of the archive log data set specified in the message.

System Action: The archive log data set will be allocated using the archive log prefix. However, the

archive log DSN will not contain the date and time as the user requested.

DSNJ072E **ARCHIVE LOG DATA SET *dsname* HAS BEEN ALLOCATED TO NON-TAPE DEVICE AND CATALOGED. ZPARM CATALOG OPTION OF 'NO' HAS BEEN OVERRIDDEN.**

Explanation: By way of an archive log DSNZPARM parameter, the user specified that all archive log data sets should be uncataloged (CATLG=NO). However, DB2 requires that all archive log data sets allocated to nontape devices must be cataloged. The archive log data set specified by '*dsname*' has been allocated to a nontape device, and has thus been cataloged. The user's DSNZPARM CATLG setting of 'NO' has been overridden.

System Action: The archive log data set has been allocated to a nontape device, and has been cataloged. The DSNZPARM CATLG=NO setting has been overridden. The BSDS reflects that the data set has been cataloged.

Operator Response: Notify the system programmer.

System Programmer Response: The DSNZPARM parameters for the log archive function must be changed. Specifically, the ARCHCTLG and ARCHDEV fields are not consistent with one another. For details concerning the course of action required to eliminate this problem, refer to Part 2 of *DB2 Installation Guide* under the DSNTIPA panel and DSN6ARVP macro subtopics.

DSNJ073I **LOG ARCHIVE UNIT ALLOCATION FAILURE DETECTED, RETURN CODE=*nnnn*. ALLOCATION OR OFF-LOAD OF ARCHIVE LOG DATA SET MAY FAIL.**

Explanation: While building the SVC99 text entries to dynamically allocate a new archive log data set, a unit allocation failure was detected. This message is only generated when a trace for IFCID 320 is active. The reason code, indicated by '*nnnn*' in the message, further clarifies the problem as follows:

4 (X'04')

The device type (unit name) on which the archive log data set is to be allocated is specified by the user in the DB2 system parameters. No UCBs could be found for the device type (unit name).

8 (X'08')

The device type (unit name) on which the archive log data set is to be allocated is specified by the user in the DB2 system parameters. This device type (unit name) could not be found in the MVS eligible device table (EDT).

32 (X'20')

DB2 was able to obtain a list of devices corresponding to the device type (unit name) specified in ZPARMs. However, it was determined by DB2 that this list contained a mixture of tape and nontape devices.

40 (X'28')

The device type (unit name) specified by the user in ZPARMs is valid. However, no devices are currently associated with the given device type (unit name).

44 (X'2C')

The device type (unit name) specified by the user in ZPARMs is valid. However, no DASD volumes are available with a volume use attribute of 'storage'.

48 (X'30')

The CVT indicates that UCB services are not available.

System Action: This message is issued by DB2 after the SVC99 text entries are built, but prior to the allocation of the new archive log data set. As a result of the error, the dynamic allocation of the archive log data set will be attempted using standard default values. The standard default values are generally acceptable; however, the allocation may fail or the subsequent off-load may produce undesirable processing results. For example:

- A return code of 4 or 44 (X'2C') will foretell an allocation error (DSNJ103I) when the SVC99 is issued for the archive data set.
- Off-load processing to tape may fail. DB2 uses a volume count of 20 when allocating to tape, and uses the standard MVS volume count default of 5 volumes when writing to nontape devices. In the case of most of the above errors, it would be impossible for the DB2 subsystem to determine the device type on which the data set is to be allocated. Therefore, the standard MVS default is assumed for the volume count. If the data set is successfully allocated to a tape device, and the volume of data is such that more than five volumes will be used for the archive data set, the off-load processing will receive an MVS ABEND 837-08 with message IEC028I when attempting to write to the sixth tape volume.
- Off-load processing to a direct access device may fail. When allocating a new archive log data set on a direct access device, the DB2 subsystem will use a unit count to facilitate multivolume archive data sets. With most of the above errors, it may be impossible for the DB2 subsystem to correctly determine the type of device on which the data set is to be allocated. Therefore, the standard default (1) is assumed for the unit count. If the data set is successfully allocated to a direct access device, and during the off-load processing it becomes necessary to extend the data set to another device, the off-load

processing will receive an MVS B37 (out of space) ABEND, and the archive log data set will be deallocated.

Operator Response: Notify the system programmer.

System Programmer Response: The required action is based on the return code indicated in the message.

4 (X'04') or 8 (X'08')

The most likely cause is an incorrect specification in the archive log ZPARMs (DSNTIPA panel). Correct the DEVICE TYPE field. If the DEVICE TYPE field from the archive log ZPARMs appears to be correct, check the EDT to ensure that the esoteric or generic unit name specified in the ZPARMs is actually in the EDT. Subsequent off-load processing will archive the log data which could not be previously archived due to the allocation failure (DSNJ103I).

32 (X'20') or 40 (X'28')

To correct this situation, change the archive log DEVICE TYPE ZPARM to use a device type (unit name) which contains homogenous devices, or modify the device list associated with the device type (unit name) via a system generation to supply a list of homogenous devices.

44 (X'2C')

To correct this situation, issue an MVS mount command to change the volume use attribute of a mounted 'private' volume to 'storage'. If this is a recurring problem, a system generation may be required to add permanently resident volumes with a volume use attribute of 'storage' to the esoteric or generic unit, or ZPARMs may have to be changed to use a different esoteric or generic unit name for the DEVICE TYPE (on the DSNTIPA installation panel).

48 (X'30')

UCB services became available in MVS/ESA Version 4.1 (HBB4410).

DSNJ096E *csect-name* **CRCR ENDLRSN RBA VALUE OF *rrr* IS INVALID, NO TRUNCATION WILL OCCUR**

Explanation: Truncation cannot take place because the RBA value specified on the active CRCR record is not equal to the RBA of a log record. *rrr* is the ENDLRSN specified in the active record. The ENDLRSN RBA value must match the start of a log record in a non-data sharing environment.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Confirm that the ENDLRSN value specified in the Conditional Restart

control record is correct. Run the Change Log Inventory (DSNJU003) utility with the CRESTART CANCEL parameters to cancel the conditional restart. If log truncation is desired, run the DSNJU003 utility with the correct ENDLRSN value. Restart DB2.

DSNJ098E *csect-name* **CRCR ENDLRSN OF *rrr* IS *xxx* THAN ANY KNOWN *yyyy*, NO TRUNCATION WILL OCCUR**

Explanation: Truncation cannot take place because the CRCR ENDLRSN is not in the range of LRSN or RBA values known to either the active or archive logs. *rrr* is the end LRSN specified in the active record. *xxx* is replaced by either HIGHER or LOWER. In a data sharing environment, if *xxx* is HIGHER, the CRCR ENDLRSN is higher than the LRSN of the last record written to the log data sets. If *xxx* is LOWER, the CRCR ENDLRSN is lower than the starting LRSN of the oldest archive data set. *yyyy* is replaced by LRSN. In a non-data sharing environment, if *xxx* is HIGHER, the CRCR ENDLRSN is higher than the RBA of the last record written to the log data sets. If *xxx* is LOWER, the CRCR ENDLRSN value is an RBA value that is lower than the starting LRSN of the oldest archive data set. *yyyy* is replaced by RBA.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Confirm that the ENDLRSN value specified in the Conditional Restart control record is correct. If it is not correct, run the Change Log Inventory (DSNJU003) utility with the CRESTART CANCEL parameters to cancel the conditional restart. If log truncation is desired, run the the DSNJU003 utility with the correct ENDLRSN. Restart DB2.

DSNJ099I **LOG RECORDING TO COMMENCE WITH STARTRBA=...**

Explanation: This message is generated when the log manager is initialized during DB2 startup. The value specified by the STARTRBA=value keyword is the RBA of the next byte of log data to be recorded in the DB2 active log data set(s). This information may later be needed for a conditional restart.

This message is preceded by one DSNJ001I message (if single logging) or two DSNJ001I messages (if dual logging).

System Programmer Response: None required. However, if recovery is required, information from this message may be required as input to the change log inventory (DSNJU003) utility.

DSNJ100I *csect-name* **ERROR OPENING BSDSn DSNNAME=..., ERROR STATUS=eeii**

Explanation: Log manager initialization or the -RECOVER BSDS command could not open the specified bootstrap data set (BSDS). BSDSn matches the ddname in the log startup JCL of the data set that cannot be opened. The value of 'n' is 1 or 2. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from BSDS or log failures.

System Action: When this error occurs at initialization time, DB2 startup must be terminated, because the log data sets cannot be determined and allocated without the BSDS. When this error occurs during -RECOVER BSDS processing, the command is terminated, and the system continues in single BSDS mode.

Operator Response: Notify the system programmer.

System Programmer Response: Recover the BSDS that cannot be opened. Normally, if dual BSDSs are being used, recovery consists of making a copy of the remaining good BSDS.

Problem Determination: The 'error status' contains the VSAM open return code in 'ee', and the VSAM open reason code in 'ii'. Refer to *z/OS DFSMS: Macro Instructions for Data Sets* for a list of the VSAM open return codes and reason codes, and the steps required to take corrective action.

DSNJ101E *csect-name* **CRCRERBA OF *rrr* IS *xxx* THAN ANY KNOWN RBA, BUT COLD START WAS NOT SPECIFIED**

Explanation: Truncation cannot take place because the CRCR end RBA is not in the range of RBA values known to either the active or archive logs. '*rrr*' is the end RBA specified in the active record. '*xxx*' is replaced by either HIGHER or LOWER. If HIGHER is the case, the CRCRERBA is higher than the end RBA of the most recent active log data set. LOWER means the CRCRERBA is lower than the starting RBA of the oldest archive data set.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Most likely, the archive log data set that contained the requested RBA has been deleted from the bootstrap data set (BSDS) by the change log inventory (DSNJU003) utility. Locate the output from an old Print Map run, and identify the data set that contains the missing RBA. If the data set has not been reused, run the DSNJU003 utility to add this data set back into the inventory of log data sets. Restart DB2.

DSNJ102I LOG RBA CONTENT OF LOG DATA SET DSNAME=..., STARTRBA=..., ENDRBA=..., DOES NOT AGREE WITH BSDS INFORMATION

Explanation: The log RBA range shown in the BSDS for the specified data set does not agree with the content of the data set. This message indicates that the change log inventory (DSNJU003) utility was used incorrectly or that a down-level volume is being used.

System Action: DB2 startup processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Use the print log map (DSNJU004) and change log inventory (DSNJU003) utilities to make the BSDS consistent with the log data sets.

- Using AMS, providing another copy of the active log data set
- Updating the BSDS with the change log inventory (DSNJU003) utility
- Restarting DB2.

For archive log data sets:

- If the problem occurred during allocation with the intent to write the data set, no immediate action is required. However, failure to resolve the SVC99 error (indicated by the STATUS value in the message) might eventually cause the available space in the active log to be exhausted (DSNJ111E), since all future off-loads might fail due to the same error.
- If the problem occurred during allocation with the intent to read the data set, determine the problem, and use the DSNJU003 utility DELETE function to delete the archive log data set from the BSDS archive log inventory. Then use the NEWLOG function to add the data set back into the archive log inventory, pointing to the correct volume and device.

DSNJ103I csect-name LOG ALLOCATION ERROR DSNAME=dsname, ERROR STATUS=eeeeiiii, SMS REASON CODE=ssssssss

Explanation: The log manager encountered an error while attempting to allocate the active or archive log data set indicated by the DSNAME=keyword. The STATUS=keyword indicates the error reason code returned by MVS dynamic allocation (SVC99).

This message might be preceded by message DSNJ073I.

System Action: Subsequent log manager actions are based upon the type of data set involved.

For active log data sets, if the error is encountered during log manager initialization, DB2 startup is terminated. If two copies of the active log data sets are defined, this message appears only once.

For archive log data sets, if two copies of the archive log data sets are defined, processing continues on the remaining archive log data set.

Operator Response: Notify the system programmer.

System Programmer Response: The error status portion of this message contains a 2-byte error code (S99ERROR) followed by the 2-byte information code (S99INFO) from the SVC99 request block. If the S99ERROR code indicates an SMS allocation error (97XX), then 'ssssssss' contains additional SMS reason code information obtained from S99ERSN. Refer to *z/OS MVS Programming: Authorized Assembler Services Guide* for a description of the SVC99 codes. Additional SMS reason codes can be found in *z/OS DFSMSdfp Diagnosis Reference*.

For active log data sets, if the problem occurred during DB2 initialization, you can resolve the problem by either:

- Resolving the error associated with the active log data set as indicated by STATUS=keyword

If additional information is required about recovery from log failures, refer to Part 4 (Volume 1) of *DB2 Administration Guide*.

This message can also be issued as the result of a possible user error. If the STATUS=keyword displays a value of '17080000', then the site might have one or more active log data sets defined in the BSDS, but not allocated on DASD. To correct the situation, print the contents of the current active log data set inventory using the print log map (DSNJU004) utility, and then do *one* of the following:

- For each active log data set listed in the BSDS, but not actually allocated on DASD, allocate the active log data set using access method services. The access method services command syntax for active log data sets can be found in the DSNTIJIN installation job stream.
- Use the DSNJU003 utility DELETE statement to delete the errant active log data set name, and the NEWLOG statement to add the correct name to the active log data set inventory. The name specified on the NEWLOG statement must be the same as the name of the actual DB2 active log data set allocated on DASD.

DSNJ104I csect-name RECEIVED ERROR STATUS nnn FROM macro-name FOR DSNAME dsname

Explanation: DB2 encountered an error while issuing macro 'macro-name'. Error status is the return code from the specified macro.

- For an OPEN of a VSAM data set, the return code in the error field of the access method services control block is included in this message as the error status

value. Refer to the appropriate VSAM publication for a definition of these values.

- If the OPEN was for a non-VSAM data set, the error status is zero.
- For MMSRV errors, error status contains the error information returned by media manager services. If an MMSRV CATUPDT failure occurs attempting to truncate an active log data set, the log data set will be unavailable to DB2 and the status of the log data set will be flagged as 'STOPPED' in the BSDS.
- For VSAM OPEN and MMSRV errors, this message is preceded by an IEC161I message that defines the error that occurred.
- For a PROTECT of an archive log data set, the return code is from DADSM PROTECT. Refer to the appropriate MVS publication for a description of the MMSRV return codes.
- For a CLOSE of an archive log data set, the return code is the TCB completion code for an abend received during CLOSE processing. This abend is normally preceded by an IEC210I or IEC212I message that defines the error.
- For EDTINFO and UCBLLOOK errors, the first 2 bytes contain the return code and the second 2 bytes contain the reason code.

Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.

System Action: If this condition is encountered during log manager initialization, DB2 startup is terminated. If the error occurs later and the data set is needed either for offload or for input operations, DB2 processing continues. If a second copy of the data is available, DB2 attempts to allocate and open the second data set.

If the data set is needed as an active log data set, the log manager attempts to retry the failing request. If the retry fails, the DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If the error occurred during initialization, the installation must either correct the problem so that the data set is available or provide another copy of the data set and change the BSDSs to point to the new data set.

If the error occurred during DB2 processing, the return code should be reviewed and the appropriate action taken to correct the problem so that the data set can be used at a later time or the data set entry can be removed from the BSDS via the change log inventory (DSNJU003) utility.

If the error was received from PROTECT, there may be a problem with the PASSWORD data set. You should refer to the appropriate DADSM publication to determine the cause of the problem. When the problem has been corrected, you should ensure the archive log data sets receiving the error are added to the PASSWORD data set. If these archive log data sets are not added to the

PASSWORD data set, archive read will fail when attempting to OPEN these data sets.

If the error was received from EDTINFO or UCBLLOOK and the allocation for the archive log data set fails, verify that the archive UNIT names are correct in ZPARMS.

DSNJ105I *csect-name* LOG WRITE ERROR
DSNAME=..., LOGRBA=..., ERROR
STATUS=ccccffss

Explanation: The log manager encountered a write error in the specified active log data set. If 'csect-name' is DSNJW107, the error occurred writing the log buffers to an active log data set. If 'csect-name' is DSNJW207, the error occurred while preformatting the next control area before writing log data into it.

Error status contains the error information returned by media manager in the form 'ccccffss', where 'cccc' is a 2-byte return code that describes the error, 'ff' is a 1-byte code that defines the functional routine that detected the error, and 'ss' is the 1-byte status code that defines a general category of error. Refer to the appropriate MVS publication for a description of the MMCALL return codes.

If the dual active logging option is selected, the log manager switches to the next data set for this copy. If the next data set is not ready, the log manager temporarily enters single logging mode and allocates a replacement data set for the one that encountered the error. Dual logging is resumed as soon as possible.

If single active logging option is selected and the next data set is not ready, the log manager waits for that data set to be available. In this case, log writing is inhibited until the replacement is ready for output.

System Action: See the Explanation section of this message.

Operator Response: Notify the system programmer.

System Programmer Response: See the Explanation section of this message.

DSNJ106I LOG READ ERROR DSNAME=...,
LOGRBA=..., ERROR STATUS=ccccffss

Explanation: The log manager encountered an error while reading an active log data set. The 'error status' contains the error information returned by the media manager in the form 'ccccffss', where 'cccc' is a 2-byte return code that describes the error, 'ff' is a 1-byte code that defines the functional routine that detected the error, and 'ss' is the 1-byte status code that defines a general category of error.

System Action: If another log data set contains the data, the log manager attempts to read the data from the alternate source. If an alternate source is not available, the log manager returns a read error return code to the program requesting the log data.

Operator Response: Notify the system programmer.

System Programmer Response: If the site is using dual logging, the requested RBA was probably retrieved from the corresponding dual active log data set, and no immediate response is necessary. However, if this error occurs frequently, or if the site is using single logging, immediate attention may be required.

Since this condition might indicate an error detected by the media manager, refer to *z/OS DFSMSdfp Diagnosis Reference* for a description of media manager return codes. Take corrective action based on these codes.

It might be necessary to replace the bad data set with a new data set containing the log data, and to update the BSDSs to reflect the new data set using the change log inventory (DSNJU003) NEWLOG operation.

For additional information about recovery from log failures, refer to Part 4 (Volume 1) of *DB2 Administration Guide*

This message can also be issued as the result of a possible user error. If the data set name associated with the DSNAME=keyword is missing, and the STATUS=keyword displays a value of '00180408' or '00100408', then the site is using dual logging, but only one set of active log data sets are defined in the BSDS. To resolve this condition, do *one* of the following:

- Define a second set of active log data sets using access method services (if they are not defined already), and update the BSDS log inventory using the DSNJU003 NEWLOG operation.
- Reset the log parameters ZPARM to indicate single logging. To do this, set the TWOACTV parameter in the DSN6LOGP ZPARMs to NO.

DSNJ107I READ ERROR ON BSDS
DSNAME=*name* ERROR STATUS=*status*

Explanation: The log manager encountered an error while reading the specified bootstrap data set. Error Status contains the VSAM return and feedback codes. It is a 2-byte field with the first byte containing the hexadecimal return code and the second containing the hexadecimal feedback code. Refer to the appropriate MVS publication for a description of VSAM return and reason codes.

Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from BSDS or log failures.

System Action: If dual BSDSs are available, the log manager attempts to read from the other BSDS. If read from the second BSDS fails or if there is only one BSDS, an error code is returned to the log request that caused access to the BSDS.

If read error is detected during start-up, DB2 initialization process is terminated to prevent users from operating in a cripple mode. User should take action to correct the problem.

Operator Response: Notify the system programmer.

System Programmer Response: It may be necessary to replace or repair the BSDS, depending on what conditions resulted from the read error. To replace a BSDS, first delete the bad BSDS, and then define the new BSDS with the same name and attributes. If a new name is used for the new BSDS, change the log startup JCL to specify the new BSDS name.

DSNJ108I WRITE ERROR ON BSDS DSNAME=...
ERROR STATUS=...

Explanation: The log manager encountered an error while writing to the specified bootstrap data set. Error Status contains the VSAM return and feedback codes. It is a 2-byte field with the first containing the hexadecimal return code and the second containing the hexadecimal feedback code. Refer to the appropriate VSAM publication for a description of VSAM return and reason codes.

System Action: If dual BSDSs are available, the log manager enters single BSDS mode using the remaining good BSDS. Otherwise, an error code is returned to the log request that caused access to the BSDS.

Operator Response: Notify the system programmer.

System Programmer Response: If dual BSDS mode is being used, execute an offline access method services job to rename the error BSDS and define a new BSDS with the same name. Then enter the log manager -RECOVER BSDS command to reestablish dual BSDS mode.

If dual BSDS mode is not being used, the DB2 subsystem must be shut down, and the BSDS must be recovered from a backup copy. To recover the BSDS, use the change log inventory (DSNJU003) utility.

DSNJ109I OUT OF SPACE IN BSDS DSNAME=...

Explanation: There is no more space in the specified bootstrap data set. The operation that encountered the out-of-space condition did not complete properly.

System Action: If dual BSDSs are available, the log manager enters single BSDS mode using the remaining good BSDS. Otherwise, an error code is returned to the log request that caused access to the BSDS.

Operator Response: Notify the system programmer.

System Programmer Response: If dual BSDS mode is being used, execute an offline access method services job to rename the full BSDS and define a new, larger BSDS with the same name. Enter the DB2 -RECOVER BSDS command to reestablish dual BSDS mode.

If dual BSDS mode is not being used, the DB2 subsystem must be shut down and the BSDS recovered offline. In this case, execute the same access method services job mentioned above to rename the full data

set and define a larger data set. Next, execute an access method services REPRO job to copy the full BSDS into the new BSDS.

DSNJ110E LAST COPYn ACTIVE LOG DATA SET IS nnn PERCENT FULL

Explanation: This message is issued when the last available active log data set is 5% full, and is reissued after each additional 5% of the data set space is filled.

System Action: Each time the message is issued, the off-load processing is retried. If the situation is not corrected, the active log data space fills to capacity, message DSNJ111E is issued, and the DB2 online processing halts.

Operator Response: To clear this condition, steps must be taken to complete other waiting off-load tasks. Once an active log data set is made available (reusable) by completing the off-load process for it, the DB2 logging activity can continue.

Execute an MVS *Display System Requests* command (D R,L for example) to determine the outstanding requests related to the log off-load process. Take the necessary action to satisfy any requests, and permit off-load to continue. If off-load fails to complete normally or cannot be initiated, notify the system programmer.

System Programmer Response: Either correct the problem that is causing the off-load process to fail, or add more active log data sets. Note that the latter action requires DB2 to be down and the change log inventory (DSNJU003) utility to be run.

Possible causes for the shortage of active log data space are:

- Excessive logging. For example, too many users have requested logs at the same time or too many utilities have specified LOG(YES).
- Delayed or slow off-loading. For example, failure to mount archive volumes, incorrect replies to off-load messages, or slow device speeds.
- Excessive use of the -ARCHIVE LOG command. Each invocation of the -ARCHIVE LOG command causes the DB2 subsystem to switch to a new active log data set and to initiate an off-load of the active log. Although the -ARCHIVE LOG command will not be processed when only one active log data set remains in a copy of the active log (see DSNJ319I), excessive use of the command could have consumed all space in the active log except the current active log data sets.
- Off-loads failed. See Operator Response.
- Insufficient active log space. See Operator Response.
- Offload task no longer functioning. Issue the -ARCHIVE LOG CANCEL OFFLOAD command to abnormally terminate and restart the offload process.

DSNJ111E OUT OF SPACE IN ACTIVE LOG DATA SETS

Explanation: Due to delays in off-load processing, all available space in all active log data sets has been exhausted. DB2 recovery logging cannot continue.

System Action: The DB2 log manager waits for an available data set.

Operator Response: Execute an MVS *Display System Requests* command (D R,L for example) to ensure that there are no outstanding requests that are related to the log off-load process. Take the necessary action to satisfy any requests, and permit off-load to continue.

System Programmer Response: If the delay was caused by the lack of a resource required for off-load, the necessary resource must be made available to allow off-load to complete and thus permit logging to proceed. For additional information on recovery from this condition, refer to the discussion on DB2 system resource failures and active log failures in Part 4 (Volume 1) of *DB2 Administration Guide*.

DSNJ112E csect-name INSUFFICIENT ACTIVE LOG DATA SETS DEFINED IN BSDS

Explanation: There are not enough active log data sets defined in the BSDS to start DB2. This condition usually exists for one of the following reasons.

- Fewer than two data sets are defined for one of the active log copy sets.
- DSN6LOGP specified TWOACTV=YES in DB2 initialization parameters, but data sets for two copies of active log are not defined in BSDS.
- Fewer than two data sets are available (not flagged as STOPPED) for one of the active log copy sets.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Use the change log inventory (DSNJU003) utility to make the number of active log data sets defined in the BSDS consistent with the parameters specified on DSN6LOGP. Log data sets that are flagged as 'STOPPED' will not be reused by DB2. These data sets must be recovered (either redefined or recovered from the other copy of the log) and the log data sets must be deleted and re-added to the BSDS (using DSNJU003) with the appropriate RBA's, to clear the STOPPED status. Restart DB2.

DSNJ113E csect-name log-type log-value NOT IN ANY ACTIVE OR ARCHIVE LOG DATA SET. CONNECTION-ID=aaaaaaaa, CORRELATION-ID=aaaaaaaa, MEMBER-ID=member-id

Explanation: A request was made to read the log starting at this log-value and log-type (RBA or LRSN).

However, the log value cannot be found in any active or archive log data set for the indicated member. The member-id contains the ID of the data sharing member whose logs were being requested at the time of the failure or zero if data sharing is not active. The connection and correlation IDs identify the user or application that encountered the problem. Correlation IDs beginning with '0nn' where 'nn' is a number from 01 to 28, identify system agents. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.

System Action: Depending upon what log record is being read and why, this may result in an abend with a reason code of '00D1032A'.

Operator Response: Notify the system programmer.

System Programmer Response: Probable user error. Most likely, the archive log data set that contained the requested log value has been deleted from the bootstrap data set (BSDS) by the change log inventory (DSNJU003) utility. Locate the output from an old print log map run of the BSDS for the DB2 member identified by member-id, and identify the data set that contains the missing log-value. If the data set has not been reused, run the DSNJU003 utility to add this data set back into the inventory of log data sets. Restart DB2.

**DSNJ114I ERROR ON ARCHIVE DATA SET,
OFFLOAD CONTINUING WITH ONLY
ONE ARCHIVE DATA SET BEING
GENERATED**

Explanation: An error occurred while accessing one of the archive data sets being created by off-load. Because the dual archive option is specified, off-load is continuing with the other archive data set. For the RBA range being off-loaded, there is only one copy of archive instead of the usual two copies.

System Action: Off-load produces a single archive data set.

System Programmer Response: A second copy of this archive log data set can be made, and the BSDS(s) can be updated with the change log inventory (DSNJU003) utility.

**DSNJ115I OFFLOAD FAILED, COULD NOT
ALLOCATE AN ARCHIVE DATA SET**

Explanation: Off-load could not allocate an archive log data set. The off-load was not performed. This message is usually preceded by message DSNJ103I.

System Action: Off-load will be tried at a later time.

Operator Response: Notify the system programmer.

System Programmer Response: Review the error status information of message DSNJ103I. Correct the condition that caused the data set allocation to fail so that, on retry, the off-load can take place.

**DSNJ116I ERROR ATTEMPTING TO ADD
ARCHIVE ENTRY TO BSDS**

Explanation: Off-load could not add an archive entry to the BSDS. The off-load is considered incomplete. The active log data set is not marked as reusable for new log data. This message is preceded by message DSNJ107I, DSNJ108I, or DSNJ109I.

System Action: Off-load will be retried at a later time.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to the specific preceding message for action.

**DSNJ117I INITIALIZATION ERROR READING
BSDS DSNAME=....., ERROR
STATUS=...**

Explanation: The log manager encountered an error during initialization reading from the specified bootstrap data set. Error status contains the VSAM return and feedback codes. It is a two byte field with the first containing the hexadecimal return code and the second byte containing the hexadecimal feedback code. Refer to the appropriate VSAM publication for a description of VSAM return and reason codes.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of the read error using the VSAM error status information provided. Restart DB2.

**DSNJ118I LOG INITIALIZATION RECEIVED
RETURN CODE nnn FROM xxxxxxxx
MACRO**

Explanation: Log manager initialization received a bad return code from the named macro.

System Action: DB2 initialization is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the problem from the documentation on the named macro and return code. Then take appropriate steps, and restart the DB2 subsystem.

**DSNJ119I BOOTSTRAP ACCESS INITIALIZATION
PROCESSING FAILED**

Explanation: During log manager initialization, the bootstrap data set access function was unable to complete its initialization process. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from BSDS or log failures.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

DSNJ120I • DSNJ125I

System Programmer Response: One or more error messages describing the specific error have preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ120I DUAL BSDS DATA SETS HAVE UNEQUAL TIMESTAMPS, BSDS1 SYSTEM=..., UTILITY=..., BSDS2 SYSTEM=..., UTILITY=...

Explanation: When the log manager was initialized, the time stamps of the dual bootstrap data sets (BSDS) did not agree. The time stamps from the system and from the change log inventory (DSNJU003) utility are shown for each BSDS. The time stamps have the format yy.ddd hh:mm:ss.th.

System Action: DB2 attempts to re-synchronize the BSDS data sets to restore dual BSDS mode. If re-synchronization is successful, DB2 restart continues.

Operator Response: If restart fails, notify the system programmer.

System Programmer Response: If restart fails, run the print log map (DSNJU004) utility against each BSDS. From the output, determine which data set is obsolete, delete it, define a replacement for it, and copy the remaining BSDS to the replacement.

If output from the print log map (DSNJU004) utility for both data sets is similar, delete the data set with the oldest time stamp, and copy the data set with the most recent time stamp.

DSNJ121I LOG MANAGER ENCOUNTERED AN ERROR READING THE JFCB. DDNAME=nnnnnnnn

Explanation: During log manager initialization (if dual BSDS data sets are specified), the job file control block (JFCB) in MVS is read to obtain the data set names associated with DDNAME BSDS1 and BSDS2. This error is caused by a missing DD statement.

System Action: DB2 is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Ensure that a DD statement exists in the DB2 startup procedure for DDNAME BSDS1. If dual BSDS data sets are used, ensure that a DD statement also exists in the DB2 startup procedure for DDNAME BSDS2.

DSNJ122I DUAL BSDS DATA SETS ARE OUT OF SYNCHRONIZATION

Explanation: During log manager initialization, the dual BSDS data sets were found to differ in content.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Run the print log map (DSNJU004) utility against each BSDS to determine which data set was last used as copy 1. Delete the copy 2 data set, define a replacement for the deleted data set, and copy the remaining BSDS to the replacement.

DSNJ123I CHANGE LOG INVENTORY FAILURE DETECTED

Explanation: During log manager initialization, the BSDS data set was found to have been incompletely processed by the change log inventory (DSNJU003) utility.

System Action: DB2 startup is terminated.

System Programmer Response: Run the print log map (DSNJU004) utility to determine what operation against the BSDS did not complete. Run the change log inventory (DSNJU003) utility against the BSDS(s) to allow any unfinished processing to be completed.

DSNJ124I OFFLOAD OF ACTIVE LOG SUSPENDED FROM RBA xxxxxx TO RBA xxxxxx DUE TO I/O ERROR

Explanation: During off-load, an unrecoverable I/O error was encountered on an active log data set. The data set experiencing the error is marked unusable, and no further logging is done to that data set.

System Action: Active log data sets continue to be off-loaded as they become full.

Operator Response: Notify the system programmer to allow recovery actions to be initiated.

System Programmer Response: Recover the data manually from the data set, copy it to an archive data set, run the change log inventory (DSNJU003) utility to make the new archive data set available to the DB2, and remove the error-prone active log data set from DB2 by using the change log inventory utility.

DSNJ125I ERROR DUMPING BSDS, OFFLOAD CONTINUING WITHOUT PRODUCING THE BSDS DUMP

Explanation: An error occurred while dumping the BSDS data set during the off-load process. The data set is not produced, but the off-load process continues. The volume containing the off-loaded data set does not contain a BSDS for recovery use.

System Action: The system continues the off-load process without producing a dump of the bootstrap data set.

DSNJ126I BSDS ERROR FORCED SINGLE BSDS MODE

Explanation: The log manager encountered an I/O error or a VSAM logical error on a bootstrap data set. This message is preceded by message DSNJ107I or DSNJ108I.

System Action: The log manager enters single BSDS mode using the remaining BSDS.

Operator Response: Notify the system programmer.

System Programmer Response: Execute an offline access method services job to rename the error BSDS and define a new BSDS with the same name. Then enter the log manager -RECOVER BSDS command to reestablish dual BSDS mode.

DSNJ127I SYSTEM TIMESTAMP FOR BSDS=...

Explanation: When the log manager is initialized, the system time stamp for the bootstrap data sets (BSDS) is displayed. The time stamp is of the format yy.ddd hh:mm:ss.th. This time stamp should be close to the last time at which this subsystem was stopped. If not, then it may indicate a restart is being attempted with the wrong BSDS.

System Action: DB2 startup continues.

Operator Response: If the time displayed does not appear to be close to the time this subsystem was last stopped, contact the system programmer.

System Programmer Response: If you cannot explain the apparent time discrepancy, cancel the subsystem. From the startup procedure for the subsystem services address space, determine the data set names of the bootstrap data sets and run the print log map (DSNJU004) utility. Check whether the active and archive log data sets all belong to this subsystem. If not, then change the startup procedure for the subsystem services address space to use the correct bootstrap data sets.

DSNJ128I LOG OFFLOAD TASK FAILED FOR ACTIVE LOG nnnnn

Explanation: The off-load task abended while attempting to offload the relative byte address (RBA) range in active log data set 'nnnnn'.

System Action: The off-load task terminates and the archive data sets allocated to the off-load task are deallocated and deleted. The status of the active log data sets involved in the failed off-load processing remains set to 'not reusable'.

The log off-load task will be reinitiated by one of several events. The most common are:

- All the available space in the current active log data set has been used (normal case).
- A DSNJ110E message is issued.

- The master address space is started, but data in the active log has not been archived.
- An I/O error occurs on the active log, which will force the system to truncate and off-load the active log data set, and switch to a new active log data set.

Operator Response: This message is the result of an off-load failure, and will be preceded by one or more DB2 messages (for example, DSNJ073I) and/or MVS ABEND messages (for example, IEC030I, IEC031I, IEC032I). If DB2 is operating with restricted active log resources (see message DSNJ110E), quiesce the system to restrict logging activity until the ABEND or the DSNJ110E condition can be resolved. Notify the system programmer.

System Programmer Response: This message is the result of an off-load failure, and will be preceded by one or more DB2 messages (for example, DSNJ073I) and/or MVS ABEND messages (for example, IEC030I, IEC031I, IEC032I). Investigate and correct the cause of the ABEND before the off-load is attempted again by DB2.

Problem Determination: This message is the result of an off-load ABEND and will be preceded by one or more DB2 messages and/or MVS ABEND messages. See the documentation for the associated DB2 and/or MVS messages to formulate a course of corrective action. Use the print log map (DSNJU004) utility to print the BSDS (both copies if running in dual mode), and then use the DSNJU004 output to determine the current status of the active and archive log data sets.

This message can be generated for a variety of reasons. However, the most likely are:

- Archive log data set allocation errors. Refer to the text for message DSNJ103I for corrective action.
- The size of the archive log data set is too small to contain the active log data set(s) during off-load processing. All secondary space allocations have been used. This condition is normally accompanied by MVS ABEND message IEC030I.
- All available space on the DASD volume(s) to which the archive data set is being written has been exhausted. This condition is normally accompanied by MVS ABEND message IEC032I.
- The primary space allocation for the archive log data set (as specified in ZPARMS) is too large to allocate to any available online DASD device. This condition is normally accompanied by MVS ABEND message IEC032I.

DSNJ129I END OF log-rba eol-rba X COULD NOT BE FOUND IN ANY ACTIVE LOG DATA SET HIGHEST RBA FOUND WAS hi-rba X

Explanation: The log manager has been requested to find 'eol-rba', the log record which has been recorded in the bootstrap data set (BSDS) as the highest RBA written. This RBA cannot be found in any active log data

set. The highest RBA which could be found in any active data set was 'hi-rba'.

System Action: DB2 startup processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Most likely, the active log data set containing the requested RBA has been deleted from the BSDS by the change log inventory (DSNJU003) utility. If the data set has not been reused, run DSNJU003 to add this data set back into the BSDS. Restart DB2.

If the data set is not available, a conditional restart must be performed to either truncate the log prior to the RBA value of the missing data set, or to cold start at a higher RBA value. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for more information.

DSNJ130I ICF CATALOG NAME IN BSDS DOES NOT AGREE WITH DSNZPARM. BSDS CATALOG NAME=*name*, DSNZPARM CATALOG NAME=*name*

Explanation: The ICF catalog name defined in DSNZPARM does not agree with the name contained in the bootstrap data set (BSDS).

System Action: DB2 startup is abended.

User Response: Notify the system programmer.

Operator Response: If you attempt to start the DB2 subsystem, you will receive this same message and abnormal termination will result until the problem is resolved.

System Programmer Response: Change the ICF catalog name in the BSDS to agree with the name defined in DSNZPARM during DB2 initialization. To change the ICF catalog name in the BSDS, use the BSDS change log inventory (DSNJU003) utility with the NEWCAT control statement.

Problem Determination: During log manager initialization, the ICF catalog name defined in DSNZPARM is compared to the catalog name in the BSDS to ensure that the catalog name used by the log manager during DB2 processing is correct. These names were found not to be the same.

DSNJ131I *csect-name* DUAL BSDS MODE RESTORED FROM BSDS*n*

Explanation: Dual BSDS mode has been restored using BSDS copy *n*. This copy is the BSDS data set with the most recent system timestamp.

System Action: DB2 startup continues.

DSNJ138I *csect-name* OFFLOAD COMPLETE FOR LOG TRUNCATION FROM AN ARCHIVE LOG COMMAND, ENDRBA=xxxxxxxxxxxx

Explanation: This message indicates that the offload of the truncated active logs, resulting from an -ARCHIVE LOG command, has completed successfully. xxxxxxxxxxxx is the ENDRBA of the truncated active logs and the newly created archive log data sets.

DSNJ139I LOG OFFLOAD TASK ENDED

Explanation: Processing of the active log off-load ended.

System Action: This message is written to the MVS console.

Operator Response: This message does not guarantee that the off-load completed without errors. Check the console log and task messages to review the execution of the off-load task to determine whether any abnormal events occurred during the off-load.

DSNJ140I *csect-name* INVALID BSDS RELEASE LEVEL ACTIVE=xxxxxx ARCHIVE=yyyyyy DSN=zzzzzz

Explanation: At initialization time DB2 detected that the BSDS log records are not at the proper release level for this release of DB2. 'xxxxxx' contains the release level for the ACTIVE log records and 'yyyyyy' contains the release level for the ARCHIVE log records. 'zzzzzz' contains the data set name for the BSDS encountering the error.

System Action: DB2 startup will be terminated.

Operator Response: Notify the system programmer so operating procedures can be changed.

System Programmer Response: Run the appropriate conversion program (DSNJMIG0 or DSNJFAL0) to convert the BSDS data set to a compatible release level.

DSNJ150E LOG CAPTURE EXIT ABEND, EXIT DEACTIVATED

Explanation: An abnormal program interrupt was detected while executing in the installation-supplied log capture exit code (i.e. entry point DSNJW117 in load module DSNJL004). As a result of the abend, the log capture exit will no longer be active; log data will no longer be available for Exit capture/processing.

This message can only occur when an installation-supplied log capture exit (entry DSNJW117) is active for this instance of DB2.

System Action: The log capture exit (entry point DSNJW117) is terminated. No further calls will be

attempted for this DB2 instance. A full dump is provided for diagnostic purposes.

User Response: See “System Programmer Response” below.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of the DSNJL004 load module (DSNJW117 entry point) abend and take corrective action.

Note: A correctly-functioning copy of load module DSNJL004/entry DSNJW117 must be available in order to start DB2. If the problem which caused the above abend cannot be corrected, ensure that the default DSNJW117 entry (load module DSNJL004 - supplied with the DB2 release) is available during the next DB2 subsystem start.

DSNJ151I *csect-name* **IN READING** *log-type*
log-value, **A NONZERO REASON CODE**
WAS RETURNED. CONNECTION-
ID=xxxx, CORRELATION-ID=yyyyyy,
REASON-CODE=ccc,
MEMBER-ID=member-id

Explanation: DB2 could not successfully complete the read of this 'log-value' and 'log-type' (RBA or LRSN) due to reason code 'ccc'. The member-id contains the ID of the data sharing member whose logs were being requested at the time of the failure or zero if data sharing is not active. The user or application that encountered the error is identified by the connection and correlation ID. Messages that have the same connection ID and correlation ID relate to the same application. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

System Action: DB2 attempts to recover from the error.

System Programmer Response: If DB2 was able to recover from the error and successfully complete the application, no further action is required. If the application abnormally terminated or DB2 could not recover successfully, this message is followed by one or more messages. Refer to the information in this message and the subsequent messages to determine the appropriate corrective action. For information about recovery from log failures, refer to Part 4 (Volume 1) of *DB2 Administration Guide*.

DSNJ152I *csect-name* **ERROR ENCOUNTERED**
WHEN ATTEMPTING TO BUILD
ARCHIVE LOG VOLUME LIST.
CONNECTION-ID=xxxx,
CORRELATION-ID=yyyyyy,
REASON-CODE=ccc

Explanation: An error occurred while attempting to create the Archive Log Volumes report. An RBA range could not be successfully mapped into one or more

archive data sets due to reason code 'ccc'. The user or application that encountered the error is identified by the connection and correlation ID. This message might be preceded by one or more related error messages. Messages that have the same connection ID and correlation ID relate to the same user. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

This failure could be caused by one or more missing archive log data sets, or a system error (for example, an I/O error reading BSDS).

The Archive Log Volumes report (see message DSNJ330) is not produced. In addition, no premounting of tapes is possible.

System Action: The user or application continues execution. The physical read process for the user or application continues until the job completes normally or terminates abnormally. The job can terminate abnormally if the error is encountered again when the data set is physically required for the read process.

System Programmer Response: If the user or application completes successfully, no further action is necessary. If the user or application does not complete successfully, refer to the messages related to the actual failure to determine the appropriate corrective actions. For information about recovery from log failures, refer to Part 4 (Volume 1) of *DB2 Administration Guide*.

DSNJ153E

csect-name **CRITICAL LOG READ ERROR**
CONNECTION-ID = connection-id
CORRELATION-ID = correlation-id
LUWID = logical-unit-of-work-id=token
REASON-CODE = reason-code

Explanation: While processing a DB2 must-complete function, DB2 encountered an error during an attempt to access the required log data sets.

CONNECTION-ID, CORRELATION-ID, and LUWID together identify the thread associated with the request. *token* is a unique token number associated with the LUWID. *reason-code* identifies the most recent log-read failure.

System Action: The DSNJ154I message requests to retry the log-read request, and immediately follows this error message. DB2 will wait for a reply to message DSNJ154I before retrying the failed log-read request, or before abending.

System Programmer Response: Review the description of the reason-code associated with the log-read failure. Examine the system console log for additional messages regarding the log-read error. Correct the cause of the error, if possible, and reply 'Y' to the DSNJ154I message in order to retry the log-read request. If it is not possible to correct the problem causing the log-read errors, quiesce the work on the

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DB2 system before replying 'N' to the DSNJ154I message in preparation for DB2 termination.

DSNJ154I *csect-name* REPLY Y TO RETRY LOG READ REQUEST, N TO ABEND

Explanation: While processing a DB2 must-complete function, DB2 encountered an error during an attempt to access the required log data sets.

System Action: The DSNJ153E message identifies the critical log-read error, and immediately precedes this message. DB2 will wait for the operator's reply to proceed with the log-read request.

Operator Response: Notify the system programmer. Once actions have been taken to correct the cause of the log-read errors, reply 'Y' to request a retry of the failing log-read request. A reply of 'N' will fail the log-read request and DB2 will abend.

System Programmer Response: Review the description of the reason-code associated with the log-read failure, and examine the system console log for additional messages regarding the log-read error. Correct the cause of the error, if possible, and reply 'Y' to the DSNJ154I message to retry the log-read request. If it is not possible to correct the problem causing the log-read errors, quiesce the work on the DB2 system before replying 'N' to the DSNJ154I message in preparation for DB2 termination.

DSNJ155I MAXARCH SUBSYSTEM PARAMETER VALUE OF nnnn IS TOO LARGE

Explanation: The MAXARCH subsystem parameter that was specified is too large for the current BSDS format. MAXARCH, which is specified as RECORDING MAX on panel DSNTIPA, indicates the maximum number of archive log volumes per log copy to record in the BSDS. The maximum value depends on whether or not you have performed a BSDS conversion. The limit for archive volumes recorded in the BSDS is 1,000 per copy if no conversion has occurred, or 10,000 per copy if the BSDS has been converted.

System Action: The MAXARCH subsystem parameter is set to 1,000 archive log volumes, and restart continues.

Operator Response: Notify the system programmer.

DSNJ156I INVALID BSDS CONVERSION, DSN=xxxxxx

Explanation: During initialization time, DB2 detected an invalid BSDS. An invalid BSDS can result from a failure during a prior attempt to run conversion program DSNJCNVB. xxxxxx is the data set name for the BSDS encountering the error.

System Action: DB2 startup will be terminated.

System Programmer Response: The procedure for

running program DSNJCNVB includes making a copy of the BSDS prior to conversion. Restore the BSDS to the original pre-conversion copy, and retry the conversion. Once the conversion is successful, restart DB2.

DSNJ200I *csect-name* xxxxxxxx UTILITY PROCESSING COMPLETED SUCCESSFULLY

Explanation: The control section 'csect-name' successfully completed the 'xxxxxxx' utility.

System Action: DB2 writes this message to the SYSPRINT data set, not to a console.

DSNJ201I *csect-name* xxxxxxxx UTILITY PROCESSING WAS UNSUCCESSFUL

Explanation: The control section 'csect-name' was unable to successfully complete processing of 'xxxxxxx' utility.

System Action: The current utility is terminated. DB2 writes this message to the SYSPRINT data set, not to a console.

User Response: Review other messages produced by the utility to determine the appropriate action to be taken.

DSNJ202I *csect-name* INSUFFICIENT VIRTUAL STORAGE AVAILABLE TO CONTINUE WITH UTILITY

Explanation: A GETMAIN macro instruction has failed, because virtual storage is unavailable for the job-step.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Rerun the utility after providing a larger virtual storage allocation for the job-step.

DSNJ203I xxxxxxxx OPERATION IS INVALID

Explanation: The user entered a utility control statement operation of 'xxxxxxx' that is invalid.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ204I xxxxxxxx PARAMETER IS INVALID

Explanation: The user specified a utility control statement parameter of 'xxxxxxx' that is invalid.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ205I xxxxxxxx PARAMETER HAS NO ARGUMENT

Explanation: 'xxxxxxx' contains the name of a parameter that requires an argument.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Specify an argument for the identified parameter and then rerun the utility.

DSNJ206I xxxxxxxx PARAMETER REQUIRES NO ARGUMENT

Explanation: 'xxxxxxx' contains the name of the parameter that has been incorrectly followed by an = symbol.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ207I csect-name PARAMETERS INCONSISTENT WITH SPECIFIED OPERATION

Explanation: The user has specified utility control statement parameters that are inconsistent with the specified utility operation.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ208E csect name MEMBER member name WAS NOT FOUND IN THE BSDS SPECIFIED IN THE GROUP DD STATEMENT.

Explanation: You are running the print log map (DSNJU004) utility. No member record exists for this member in the bootstrap data set (BSDS) specified in the GROUP DD statement.

System Action: The log map for this member is not printed. If the records for other members are requested and are found in the BSDS specified in the GROUP DD statement, they are printed.

User Response: Use the DISPLAY GROUP command to verify that the member name is a valid name and that the member has successfully joined the group. Also verify that the BSDS specified in the GROUP DD

statement is correct. If the member name and the BSDS name are correct, then the most likely causes of this message are:

- The 'missing member' never joined the group because it was never started.
- The member whose BSDS you specified in the GROUP DD statement was down when the missing member joined the group and has not been restarted.

To gather the information from the missing member, you can rerun the utility, using the BSDS DDNAME option to point to the missing member's BSDS. To avoid this problem in the future, make sure the BSDS named in the GROUP statement is from a recently started member.

DSNJ209I ENDRBA VALUE MUST BE GREATER THAN STARTRBA VALUE

Explanation: The 'STARTRBA' and 'ENDRBA' parameters specify an RBA range. Hence, the ENDRBA value must be greater than the STARTRBA value.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ210I OLD ICF CATALOG NAME=oldname, NEW CATALOG NAME=newname

Explanation: Change log inventory (DSNJU003) utility processing for the NEWCAT control statement has completed successfully.

oldname

Either:

- The name of the prior ICF catalog or
- 'NULL' if no prior name existed.

newname

The name of the ICF catalog defined by the VSAMCAT keyword.

DSNJ211I UNEXPECTED END OF DATA ON SYSIN DATA SET

Explanation: Additional control statements were expected but could not be found.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement(s), and rerun the utility.

DSNJ212I *csect-name* **ERROR RETURNED FROM
BSDS READ, RPLERRCD=yy,
DDNAME=xxxxxxx**

Explanation: A VSAM GET was issued that resulted in a nonzero return code. 'yy' contains the error code returned by VSAM. 'xxxxxxx' contains the ddname of the BSDS encountering the error.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: The action taken is dictated by the return code. The BSDS may have to be recovered by use of a backup copy.

DSNJ213I *csect-name* **ERROR RETURNED FROM
BSDS WRITE, RPLERRCD=yy,
DDNAME=xxxxxxx**

Explanation: A VSAM PUT was issued that resulted in a nonzero return code. 'yy' contains the error code returned by VSAM. 'xxxxxxx' contains the ddname of the BSDS encountering the error.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: The action to be taken is dictated by the return code. The BSDS may have to be recovered by use of a backup copy.

DSNJ214I **SPECIFIED DSNAME ALREADY EXISTS
IN BSDS, DDNAME=xxxxxxx**

Explanation: The user attempted a NEWLOG operation with a data set name that already exists in the BSDS. An entry is never made in a BSDS if the specified DSNAME currently exists in either the active or archive records of that BSDS. 'xxxxxxx' contains the ddname of the subject BSDS.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Either correct the control statement and rerun the utility, or delete the existing DSNAME from the BSDS and rerun the utility.

DSNJ215I *csect-name* **SVC 99 INFORMATION
REQUEST FOR DD NAME 'ddname'
FAILED. RC= rc, RSN= rsncl, AND INFO
CODE infocode.**

Explanation: The Print Log Map utility requested information from the MVS Dynamic Allocation facility about the DD name shown in the message, but the system was unable to provide the information. The return code, reason code, and information code were returned by the system's SVC 99 facility. See *MVS/ESA Programming: Authorized Assembler Services Guide* for

an explanation of these codes.

System Action: If the information request was for the SYSIN DD statement, the Print Log Map utility assumes the control statement was not provided and attempts to continue the request using the SYSUT1 DD statement to locate the BSDS to be mapped.

If the information request was for the DD name of a BSDS, attempts to get information about BSDS data sets is terminated. If information about any BSDS data sets was previously acquired, the maps of those BSDS data sets are printed. Otherwise, the utility terminates.

System Programmer Response: Use the MVS manual (or the equivalent manual for the level of MVS on your system) to help you in problem determination.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353 : 4, 32.

DSNJ216I **NO SPACE IN BSDS FOR ADDITIONAL
ACTIVE LOG ENTRIES,
DDNAME=xxxxxxx**

Explanation: The maximum number of active log data sets is fixed. No further entries can be inserted after the maximum has been reached. xxxxxxxx contains the ddname of the subject BSDS.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Run the print log map utility to determine the current status of the BSDS. Subsequent actions can then be formulated, depending upon the status of the BSDS.

DSNJ217I **SPECIFIED DSNAME DOES NOT EXIST
IN BSDS, DDNAME=xxxxxxx**

Explanation: The DELETE operation specifies a DSNAME that cannot be found in the BSDS. 'xxxxxxx' contains the ddname of the subject BSDS.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ218I **SPECIFIED VOLUME DOES NOT EXIST
IN BSDS, DDNAME=xxxxxxx**

Explanation: The DELETE operation specifies a COPY1VOL or COPY2VOL argument that cannot be

found in the BSDS. 'xxxxxxx' contains the ddname of the subject BSDS.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement, and rerun the utility.

DSNJ219I *csect-name* **OPEN ERROR,**
DDNAME=xxxxxxx

Explanation: An error occurred when the CSECT 'csect-name' tried to open a data set named 'xxxxxxx'.

This error can be caused by a number of different conditions. The most probable conditions are:

1. The ddname of the SYSPRINT, SYSIN, or SYSUT1 data set was not specified in the user's job control language (JCL).
2. The DB2 subsystem is currently executing.
3. The bootstrap data set (BSDS) was allocated by another job with a disposition (DISP) that conflicts with the DISP specified in the user's JCL.
4. The data set associated with 'xxxxxxx' is already open, possibly due to an earlier system abend.
5. The user is not authorized to access the data set associated with 'xxxxxxx'
6. Insufficient virtual storage is available to perform the OPEN command.
7. The catalog indicates that the data set associated with 'xxxxxxx' has an invalid physical record size.

System Action: The current utility is terminated.

DB2 writes this message to the SYSPRINT data set, not to a console.

User Response: The user's action depends on the condition that caused the OPEN error. The following is a list of appropriate actions corresponding to the conditions listed in the explanation:

1. Provide the missing DD statements, and then rerun the utility. Refer to *DB2 Utility Guide and Reference* for details about the required DD statements.
2. Wait until the DB2 subsystem is inactive before running the utility again because the log utility cannot execute while the DB2 subsystem is active.
3. Correct the disposition conflict and then rerun the utility.
4. Submit an access method services (IDCAMS) VERIFY job against the data set associated with 'xxxxxxx'. Rerun the log utility job.
5. In the case of an authorization failure, a separate message is usually generated from the authorization facility (RACF, for example). Investigate the authorization messages and obtain the proper authorization before running the utility again.

6. Insufficient virtual storage is usually accompanied by a separate error from the MVS operating system. Increase the REGION size on the JCL job step and rerun the utility.
7. Contact the system programmer.

DSNJ220I **BSDS IN CREATE MODE. NO DATA TO**
MAP, DDNAME=nnnnnnnn

Explanation: A utility found the BSDS to be in create mode, meaning it contains no data. *nnnnnnnn* contains the ddname of the BSDS data set.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Ensure that the BSDS data set name specified as input to the utility is correct.

DSNJ221I **PREVIOUS ERROR CAUSED xxxxxxxx**
OPERATION TO BE BYPASSED

Explanation: DB2 encountered errors while processing a utility. These errors subsequently caused 'xxxxxxx' to be bypassed.

This message is a warning only and is displayed after messages that specify the error or errors that caused the utility operation to abend. Note that the error or errors may not be associated with the current 'xxxxxxx' operation; rather, under log utility processing, a significant error in any operation causes the control statements for this and any subsequent operations to be checked for syntax only. BSDS updates do not occur for any operation specified in this message.

System Action: The log utility continues to process. However, for this and all subsequent operations, the bootstrap data set (BSDS) is not updated and the utility only checks the syntax of the control statements.

DB2 writes this message to the SYSPRINT data set, not to a console.

User Response: Consult the previous messages and correct any errors that caused this message to be generated. Resubmit the log utility job for all operations that have been bypassed.

DSNJ222I **INVALID SPECIFICATION OF xxxx**
PARAMETER ARGUMENT

Explanation: You specified the parameter 'xxxx'. This parameter is not valid for the argument.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the parameter argument on the control statement, and rerun the utility.

**DSNJ223I xxxx PARAMETER ARGUMENT
EXCEEDS MAXIMUM ALLOWABLE
LENGTH**

Explanation: The argument value of the parameter named 'xxxx' exceeds the maximum length allowed.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the parameter argument on the control statement, and rerun the utility.

**DSNJ224I xxxx PARAMETER APPEARS TOO
OFTEN**

Explanation: The parameter named 'xxxx' was specified more than once on the same control statement.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Remove the redundant parameter, and rerun the utility.

**DSNJ225I xxxx OPERATION COMPLETED
SUCCESSFULLY**

Explanation: The change log inventory (DSNJU003) utility operation named 'xxxx' completed successfully.

System Action: This message is written to the SYSPRINT data set, not to a console.

**DSNJ226I SPECIFIED VOLUME ALREADY EXISTS
IN BSDS, DDNAME=xxxxxxx**

Explanation: The specified volume currently exists in the archive log records of the BSDS. 'xxxxxxx' specifies the ddname of the subject BSDS.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Either correct the parameter argument on the control statement, or delete the specified volume and rerun the utility.

**DSNJ227I NO SPACE AVAILABLE IN BSDS FOR
ADDITIONAL ARCHIVE VOLUME
ENTRIES, DDNAME=xxxxxxx**

Explanation: The maximum number of archive volumes has been exceeded, and no more space is available for volume entries in the copy specified.

System Action: The current utility is terminated.

User Response: Delete some of the archive entries in the specified copy number, and rerun the utility.

**DSNJ228I csect-name LOG DEALLOCATION
ERROR DSNAME=dsname, ERROR
STATUS=eeeeiiii, SMS REASON
CODE=ssssssss**

Explanation: The log manager encountered an error while trying to dynamically deallocate the data set. Error status is the error reason code returned by MVS dynamic allocation.

System Action: Log manager processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: The error status portion of this message contains the 2-byte error code (S99ERROR) followed by the 2-byte information code (S99INFO) from the SVC request block. If the S99ERROR code indicates an SMS deallocation error (97XX), then 'ssssssss' contains additional SMS reason code information obtained from S99ERSN. Refer to the *MVS/ESA SPL: Application Development Guide* for a description of these codes.

DSNJ229I csect-name OPEN FAILED FOR SYSIN

Explanation: An error occurred when the DB2 Print Log Map utility tried to open the SYSIN data set.

Possible causes are:

1. The DD name of the SYSIN data set was not specified in the user's job control language (JCL).
2. Insufficient virtual storage is available to perform the OPEN command.
3. The characteristics of the SYSIN data set are different from those expected by the print log map (DSNJU004) utility.

System Action: DSNJU004 attempts to continue processing without an input control statement. DB2 writes this message to the SYSPRINT data set, not to the system console.

User Response: Take one of the following actions based on the cause of the error.

1. Provide the missing DD statement and rerun the utility. Refer to *DB2 Utility Guide and Reference* for details about the required DD statements.
 2. Insufficient virtual storage is usually accompanied by a separate error message from the MVS operating system. Increase the REGION size on the JCL job step and rerun the utility.
 3. Check that the SYSIN data set is a fixed record format (blocked or unblocked) with an LRECL of 80. You might need to contact the system programmer for help if this is a JES data set.
-

**DSNJ230I LOG OFFLOAD SUBCOMPONENT
INITIALIZATION PROCESSING FAILED**

Explanation: During log manager initialization, the off-load function was unable to complete its initialization process.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate actions to take.

**DSNJ231I LOG COMMAND INITIALIZATION
PROCESSING FAILED**

Explanation: During log manager initialization, the log command function was unable to complete its initialization process.

System Action: DB2 startup is terminated.

Operator Response: The rest of subsystem termination will direct the actions you should take.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

This message will be of interest to the IBM support center when the problem is described.

**DSNJ232I OUTPUT DATA SET CONTROL
INITIALIZATION PROCESSING FAILED**

Explanation: During log manager initialization, the output data set control function was unable to complete its initialization process.

System Action: DB2 startup is terminated.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message for error analysis and the appropriate action to take.

This message will be of interest to the IBM support center when the problem is described.

**DSNJ233I ARCHIVE LOG READ INITIALIZATION
PROCESSING FAILED**

Explanation: During log manager initialization, the archive log read function was unable to complete its initialization process.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error

analysis and the appropriate action to take.

**DSNJ234I ARCHIVE LOG COMMAND QUIESCE
INITIALIZATION PROCESSING FAILED**

Explanation: During log manager initialization, the quiesce function which supports the -ARCHIVE LOG MODE(QUIESCE) command processing was unable to complete its initialization process.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

**DSNJ235I OUTPUT BUFFER WRITER
INITIALIZATION PROCESSING FAILED**

Explanation: During log manager initialization, the output buffer writer function was unable to complete its initialization process.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

**DSNJ236I BOOTSTRAP ACCESS TERMINATION
PROCESSING FAILED**

Explanation: During log manager termination, the bootstrap data set access function was unable to complete its termination process.

System Action: Log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

**DSNJ237I *csect-name* INVALID CONTROL
STATEMENT. THE FIRST WORD MUST
BE 'MEMBER'.**

Explanation: The print log map (DSNJU004) utility read an invalid control statement from the SYSIN data set.

System Action: DSNJU004 ignores the control statement and attempts to continue processing by looking for a SYSUT1 DD statement to describe the BSDS that is to be printed.

User Response: Refer to *DB2 Utility Guide and*

Reference for information on creating a print log map (DSNJU004) utility control statement. Correct or remove the control statement and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353 : 32.

DSNJ238I LOG OFFLOAD TERMINATION PROCESSING FAILED

Explanation: During log manager termination, the off-load function was unable to complete its termination process.

System Action: Log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ239I LOG COMMAND TERMINATION PROCESSING FAILED

Explanation: During log manager termination, the log command function was unable to complete its termination process.

System Action: Log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ240I OUTPUT DATA SET CONTROL TERMINATION PROCESSING FAILED

Explanation: During log manager termination, the output data set control function was unable to complete its termination process.

System Action: The log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ241I ARCHIVE LOG READ TERMINATION PROCESSING FAILED

Explanation: During log manager termination, the archive log read function was unable to complete its termination process.

System Action: Log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ242I ARCHIVE LOG COMMAND QUIESCE TERMINATION PROCESSING FAILED

Explanation: During log manager termination, the quiesce function which supports the -ARCHIVE LOG MODE(QUIESCE) command processing was unable to complete its termination process.

System Action: Log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ243I OUTPUT BUFFER WRITER TERMINATION PROCESSING FAILED

Explanation: During log manager termination, the output buffer writer function was unable to complete its termination process.

System Action: Log manager shutdown continues to the next step.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

DSNJ244I LOG TERMINATION RECEIVED RETURN CODE nnn FROM xxxxxxxx MACRO

Explanation: Log manager termination was passed a bad return code from the named macro.

System Action: Log manager termination processing continues.

Operator Response: Record the return code and macro-name, and notify the system programmer.

System Programmer Response: This message is

associated with a failure in the named macro. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNJ245I **CONDITIONAL RESTART RECORD INDICATES TRUNCATION AT *xxx rrr*.
REPLY Y TO CONTINUE, N TO CANCEL**

Explanation: The conditional restart control record in use indicates that the DB2 log should be truncated at the specified RBA or LRSN.*xxx* is replaced by either RBA or LRSN, and *rrr* is the value specified in the current record.

System Action: If Y, DB2 startup continues. If N, DB2 startup is terminated.

Operator Response: Reply N if the truncation is going to occur at an undesirable point. Notify system programmer. Reply Y to continue the restart.

System Programmer Response: Rerun the change log inventory (DSNJU003) utility to modify the conditional restart record.

DSNJ246I **CONDITIONAL RESTART RECORD INDICATES COLD START AT RBA *rrr*.
REPLY Y TO CONTINUE, N TO CANCEL**

Explanation: The conditional restart control record in use indicates that DB2 is to be cold started and that logging is to be begin at the specified RBA.

System Action: If 'Y', DB2 startup continues. If 'N', DB2 startup is terminated.

Operator Response: Reply 'N' if the truncation is going to occur at an undesirable point. Notify the system programmer. Reply 'Y' to continue the cold start.

System Programmer Response: Rerun the change log inventory (DSNJU003) utility to modify the conditional restart record.

DSNJ247E *csect-name* **I/O ERROR DURING PROCESSING OF *rrr* RC = *rc*, REASON = *reason***

Explanation: The I/O error occurred at record '*rrr*'. '*rc*' indicates the return code received from the I/O operation. '*reason*' indicates the reason code received from the I/O operation.

If a return code '4' was received, this indicates that the log manager detected a problem. If a return code '8' was received, this indicates a VSAM error.

System Action: DB2 startup terminates.

Operator Response: Notify the system programmer.

System Programmer Response: For a return code of '4', if you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on

identifying and reporting the problem. For a return code of '8', execute an offline access method services job to determine the cause of the VSAM error.

DSNJ248I **ARCHIVE LOG READ DEALLOCATION INITIALIZATION PROCESSING FAILED**

Explanation: During log initialization, the archive log read deallocation process was unable to complete its initialization.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error precede this message. Refer to these messages for error analysis and the appropriate action to take.

DSNJ249I **ARCHIVE LOG READ SCHEDULER INITIALIZATION PROCESSING FAILED**

Explanation: During log initialization, the archive log read scheduling process was unable to complete its initialization.

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error precede this message. Refer to these messages for error analysis and the appropriate action to take.

DSNJ250E *csect-name* **DATA SHARING REQUIRES ALL ACTIVE LOG DATA SETS TO BE DEFINED WITH SHAREOPTIONS(2 3) OR HIGHER.**

Explanation: DB2 detected an active log data set defined with share options that do not permit recovery operations in a data sharing environment. This message is followed by message DSNJ251E, which identifies the specific active log data set.

All active log data sets for a DB2 data sharing member must be defined with a minimum of SHAREOPTIONS(2 3) for successful DB2 initialization. See the description of message DSNJ251E for more details.

System Action: The DB2 subsystem detecting this condition is terminated.

DSNJ251E *csect-name* **DATA SET *dsname* FAILS TO MEET THE MINIMUM REQUIRED SHAREOPTIONS FOR DATA SHARING.**

Explanation: The share options defined for the data set named in the message are too low to permit the data set to participate in a DB2 data sharing group. All active log data sets must be defined with

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SHAREOPTIONS(2 3) or higher in order to participate in a data sharing group.

System Action: The DB2 subsystem detecting this error is terminated.

System Programmer Response: Using IDCAMS LISTCAT or TSO LISTCAT, display the share options of all of the active log data sets of all of the members in the data sharing group. For any active log data set that is defined with less than SHAREOPTIONS(2 3), use IDCAMS ALTER or TSO ALTER to alter the data set definitions to SHAREOPTIONS(2 3) or higher.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 11.

DSNJ252I xxxx NUMBER OF PARAMETER ARGUMENTS EXCEED MAXIMUM VALUE

Explanation: The number of arguments for the parameter named xxxx exceed the maximum value allowed.

System Action: The current operation is terminated. This message is written to the SYSPRINT data set, but not written to a console.

User Response: Change the number of parameter arguments on the control statement, and rerun the utility.

DSNJ253I csect-name alias-port USE IS INVALID

Explanation: The *alias-port* value has been used in an invalid manner. The error could be due to one of the following conditions:

- *alias-port* was specified after more than one alias-name parameter
- *alias-port* duplicates the port value for the PORT or RESPORT parameters which have been specified with this update, or are already stored in the BSDS

System Action: The update of the BSDS will not be performed.

User Response: Retry the BSDS update with unique *alias-port* values, which also do not match the values for the PORT or RESPORT parameters.

DSNJ260I csect_name BSDS CONVERSION FOR DDNAME=nnnnnnnn COMPLETED SUCCESSFULLY

Explanation: The BSDS conversion utility issues this message to indicate a successful conversion for the BSDS data set specified by the *nnnnnnnn* DDNAME.

System Action: Processing continues.

DSNJ261I csect_name BSDS CONVERSION FOR DDNAME=nnnnnnnn WAS NOT SUCCESSFUL

Explanation: The BSDS conversion utility issues this message to indicate conversion was not successful for the BSDS data set specified by the *nnnnnnnn* DDNAME.

System Action: The action taken depends on whether dual BSDS data sets are specified, and if so, which conversion failed. The DDNAME in the message indicates the failing BSDS data set.

If dual BSDS data sets are specified, the SYSUT1 data set is converted first. If that conversion is successful, the SYSUT2 data set is then converted. A failure at this point does not affect the successful SYSUT1 conversion.

If conversion fails for the SYSUT1 data set, processing is terminated at that point. In this case, any SYSUT2 data set that was specified will not be converted.

User Response: Review other messages produced by the utility to determine the cause of the failure and the resulting action to take.

DSNJ266I WARNING - BSDS UTILITY TIMESTAMP MISMATCH DETECTED. PROCESSING TERMINATED.

Explanation: DB2 detected a mismatch in the timestamps for the SYSUT1 and SYSUT2 BSDS copies during execution of BSDS conversion utility DSNJCNVB. This indicates the possibility that the dual BSDSs are out of sync.

System Action: The program will terminate with no action taken.

System Programmer Response: Run the print log map utility (DSNJU004) against each BSDS. From the output, determine which data set is obsolete, delete it, and define a replacement for it. Then copy the remaining data set into the replacement and retry the utility.

If output from the print log map utility for both data sets is similar, delete the data set with the oldest time stamp, and copy the data set with the most recent time stamp into the replacement.

DSNJ301I csect-name ERROR action ONLINE BOOTSTRAP DATA SET

Explanation: During command processing for the -RECOVER BSDS command or the -ARCHIVE LOG command, an error occurred while performing an operation on the Bootstrap Data Set. The type of operation is specified in the 'action' keyword in the message text:

- **ACCESSING** Unable to OPEN the BSDS.
- **READING** Unable to read a required record from the BSDS.
- **UPDATING** Unable to write a required record to the BSDS.
- **RESTORING DUAL** The contents of the stable BSDS was successfully copied to the replacement BSDS; however, the DB2 subsystem was unable to successfully restore dual BSDS operation.

System Action: If this message was received during processing of the -RECOVER BSDS command, then the DB2 subsystem will continue in single BSDS mode. If this message was received during processing of the -ARCHIVE LOG command, the archive log history record in the BSDS will not be updated to reflect the occurrence of an -ARCHIVE LOG command; logging and the off-load processing will continue.

Operator Response: Inform the system programmer of the type of error that occurred, and whether the error occurred while processing a -RECOVER BSDS command or an -ARCHIVE LOG command.

System Programmer Response: If this message was received during processing of the -RECOVER BSDS command, then recovery action must be performed on the bootstrap data set before reentering the command. If this message was received during processing of the -ARCHIVE LOG command, no action is necessary.

**DSNJ302I ALLOCATION ERROR ON
REPLACEMENT BSDS DSNAME=...
ERROR STATUS=...**

Explanation: The RECOVER BSDS command encountered an error while trying to dynamically allocate the specified data set. DSNAME is the data set name. Error Status is the error code and information code returned by MVS dynamic allocation.

System Action: Processing of the command is terminated. The system continues in single BSDS mode.

Operator Response: Determine the cause of the error from the error status contained in the message, and correct the condition. Then reenter the -RECOVER BSDS command.

System Programmer Response: The error status portion of this message contains the 2-byte error code (S99ERROR) followed by the 2-byte information code (S99INFO) from the SVC request block. Refer to the appropriate MVS publication for a description of these codes.

**DSNJ303I WRITE ERROR ON REPLACEMENT
BSDS DSNAME=... ERROR STATUS=...**

Explanation: The -RECOVER BSDS command encountered an error while attempting to write to the specified bootstrap data set. Error Status contains the

VSAM return and feedback codes. It is a 2-byte field with the first containing the hexadecimal return code and the second containing the hexadecimal feedback code.

System Action: Processing of the command is terminated. The system continues in single BSDS mode.

Operator Response: Notify the system programmer.

System Programmer Response: Execute an offline access method services job to delete or rename the replacement BSDS and define a new BSDS with the same name. Reenter the log manager -RECOVER BSDS command to reestablish dual BSDS mode.

**DSNJ304I ERROR CLOSING REPLACEMENT
BSDS DSNAME=... ERROR STATUS=...**

Explanation: The -RECOVER BSDS command encountered an error while attempting to close the specified bootstrap data set. Error Status contains the VSAM return and feedback codes. It is a 2-byte field with the first containing the hexadecimal return code and the second containing the hexadecimal feedback code.

System Action: Processing of the command is terminated. The system continues in single BSDS mode.

Operator Response: Notify the system programmer.

System Programmer Response: Execute an offline access method services job to delete or rename the replacement BSDS and define a new BSDS with the same name. Reenter the log manager -RECOVER BSDS command to reestablish dual BSDS mode.

**DSNJ305I REPLACEMENT BSDS NOT EMPTY
DSNAME=...**

Explanation: The -RECOVER BSDS command was issued, but the replacement bootstrap data set was not empty; that is, it contained data.

System Action: Processing of the command is terminated. DB2 continues in single BSDS mode.

Operator Response: Notify the system programmer.

System Programmer Response: Execute an offline access method services job to delete or rename the error BSDS and define a new BSDS with the same name. Reenter the log manager -RECOVER BSDS command to reestablish dual BSDS mode.

**DSNJ306I DUAL BSDS MODE ALREADY
ESTABLISHED**

Explanation: The -RECOVER BSDS command was issued, but DB2 was already in dual BSDS mode.

System Action: The command is ignored.

DSNJ307I LOG INITIALIZED IN SINGLE BSDS MODE

Explanation: The -RECOVER BSDS command was issued, but the system was initialized in single BSDS mode.

System Action: Processing of the command is terminated. The system continues in single BSDS mode.

DSNJ310I (A)SYNCHRONOUS ARCHIVE LOG COMMAND QUIESCE PROCESSING STARTED FOR MAXIMUM OF xxx SECONDS

Explanation: An -ARCHIVE LOG command with the MODE(QUIESCE) option has been accepted by the DB2 subsystem. The quiesce processing has commenced.

System Action: The DB2 subsystem will attempt to stop all updates to DB2 resources within the time period specified in the message. Users/jobs operating on the DB2 subsystem will be allowed to reach a point of consistency (commit point) before being blocked from further update activity. Jobs and users will be suspended until they are released by DB2 following the initiation of the off-load processing. If the DB2 subsystem can effectively block all users from performing updates before the maximum specified time, then the off-load will be initiated immediately, and normal processing will be resumed.

The message will display either the word SYNCHRONOUS or ASYNCHRONOUS, to inform the user of the type of quiesce processing which has been used.

- If the word SYNCHRONOUS is displayed, then the invoker used the WAIT(YES) option. This means that quiesce processing will be synchronous to the user; that is, the user can enter additional DB2 commands, but the commands will not be processed by the DB2 command processor until the quiesce processing has ended.
- If the word ASYNCHRONOUS is displayed, then the invoker used the WAIT(NO) option, or did not specify the WAIT option. This means that quiesce processing will be asynchronous to the user; that is, control will be returned to the invoker as soon as the quiesce task has been started. Thus, the DB2 command processor will accept - and process - any new DB2 commands while the quiesce task is running.

This message will be followed by message DSNJ311I or DSNJ317I.

Operator Response: No operator response is necessary. However, it can be expected that users and jobs using DB2 resources will be suspended (queued) by DB2 through the duration of the specified time interval, or until the DB2 subsystem can be certain that

all update activity has been effectively blocked. At some point, this message will be followed by the DSNJ311I message or DSNJ317I message.

DSNJ311I csect-name ASYNCHRONOUS LOG ARCHIVE (OFFLOAD) TASK INITIATED

Explanation: A user-initiated -ARCHIVE LOG command has been accepted by the DB2 subsystem. An asynchronous task to archive (off-load) the active log data set has been started.

System Action: The current active log data set(s) will be truncated and switched to the next available active log data set(s), and an asynchronous off-load task will be initiated to archive the Active log data set(s).

The term ASYNCHRONOUS is used to indicate that control will be returned to the invoker as soon as the off-load task has been started. Thus, the DB2 command processor will accept — and process — any DB2 commands while the off-load task is running.

This message is followed by message DSNJ312I if the MODE(QUIESCE) option was used with the -ARCHIVE LOG command.

Operator Response: The operator should respond per normal operational procedures when the off-load task begins.

DSNJ312I ARCHIVE LOG QUIESCE ENDED. UPDATE ACTIVITY AGAINST DB2 RESOURCES IS NOW RESUMED.

Explanation: An -ARCHIVE LOG command with the MODE(QUIESCE) option was processed by the DB2 subsystem. As part of the MODE(QUIESCE) processing, an attempt was made to stop all new update activity against DB2 resources. This message signals the end of the quiesce processing, and the resumption of normal DB2 activity for all users and jobs which were blocked during the quiesce period.

This message follows message DSNJ311I or DSNJ317I.

System Action: The DB2 subsystem has now resumed all normal DB2 activity for all users and jobs that were blocked during the quiesce period.

DSNJ313I PARAMETER SPECIFIED ON THE keyword KEYWORD (value) IS NOT IN THE RANGE OF ALLOWABLE VALUES

Explanation: This message was generated by an error occurring in one of the following commands:

- ARCHIVE LOG command with MODE(QUIESCE)
- SET ARCHIVE
- SET LOG

You specified a value for one of the command options that was outside of the range of allowed values.

System Action: Processing for the ARCHIVE LOG, SET ARCHIVE, or SET LOG command is terminated. This message is followed by message DSN9023I.

Operator Response: Refer to *DB2 Command Reference* for the correct syntax of the command. Correct the command syntax and reenter the command.

**DSNJ314I xxxx KEYWORD REQUIRES yyyy
KEYWORD TO ALSO BE SPECIFIED
ON THE COMMAND**

Explanation: A command was entered which specified the 'xxxx' keyword. However, use of the 'xxxx' keyword requires that the 'yyyy' keyword also be used.

System Action: Command processing terminates for the -ARCHIVE LOG or -RECOVER BSDS command. This message is followed by message DSN9023I.

Operator Response: Refer to the *DB2 Command Reference* for the correct syntax of the command. Correct the command syntax, and reenter the command.

**DSNJ315I -STOP DB2 MODE(FORCE) IN
PROGRESS**

Explanation: An attempt was made to issue an -ARCHIVE LOG command when a -STOP DB2 MODE(FORCE) command was already in progress.

System Action: Command processing terminates for the -ARCHIVE LOG command. The -STOP DB2 MODE(FORCE) processing continues.

**DSNJ316I SYSTEM QUIESCE ALREADY IN
PROGRESS**

Explanation: An attempt was made to issue an -ARCHIVE LOG command with the MODE(QUIESCE) option when a system quiesce was already in progress. The system quiesce could be the result of processing by another -ARCHIVE LOG MODE(QUIESCE) command, or by a -STOP DB2 MODE(QUIESCE) command.

System Action: Command processing will terminate. The system quiesce currently in progress will continue.

**DSNJ317I ARCHIVE LOG QUIESCE PERIOD
EXPIRED. NUMBER OF OUTSTANDING
UR'S = xxxx. ARCHIVE LOG
PROCESSING WILL BE TERMINATED,
AND UPDATE ACTIVITY AGAINST DB2
RESOURCES WILL BE RESUMED.
HH:MM:SS**

Explanation: An -ARCHIVE LOG MODE(QUIESCE) command was processed by the DB2 subsystem; however, the DB2 subsystem was not able to quiesce all update activity in the user-specified quiesce time interval.

System Action: This message is informational only. The DB2 subsystem determined that 'xxxx' units of recovery (URs) did not reach a point of consistency during the quiesce period, and therefore could not be stopped from continuing their associated update processing.

Consequently, the -ARCHIVE LOG processing will be terminated. The current active log data set(s) will not be truncated, and will not be switched to the next available active log data set(s). The log archive (off-load) task will not be created. All jobs and users suspended during the quiesce will be resumed, and normal update activity against DB2 resources will be commenced.

This message will be followed by the DSNJ312I message.

Operator Response: Contact the system programmer.

System Programmer Response: A determination must be made whether the outstanding (nonquiesced) URs represent significant work.

Each user on the system has a unit of recovery if they are modifying DB2 resources. URs are also created by the DB2 subsystem itself for internal processing. Since the purpose of the MODE(QUIESCE) option is to have all URs reach a point of consistency (commit point) before the active log data set is truncated and off-loaded, determine all outstanding nonqueued jobs and users by using -DISPLAY THREAD and the MVS 'D A,L' operator command.

It should be noted that URs may be outstanding due to lock contention between a user or job which holds a resource (and has reached a point of consistency), and a user or job which wants a lock (and therefore cannot reach a point of consistency).

Before resubmitting the -ARCHIVE LOG command with the MODE(QUIESCE) option, either:

- Wait until the threads have been deallocated.
- Wait until the DB2 subsystem is less busy.
- Force the offending thread(s) to terminate.
- Use the TIME option to dynamically override and extend the maximum quiesce time period specified in ZPARMS.
- Or, if having all URs reach a point of consistency in the active log is no longer critical, issue the -ARCHIVE LOG command without the MODE(QUIESCE) option.

Important: If the decision is made to use the -ARCHIVE LOG command without the MODE(QUIESCE) option, the active log data set(s) will be truncated without regard to quiescing activity on the DB2 subsystem. If the resulting archive log data set is used for recovery, it is possible that some URs may be found to be In-flight, In-Abort, In-Commit, or In-doubt during DB2 initialization.

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If expiration of the quiesce period before all URs reach a consistent point are a chronic problem, an adjustment to ZPARMs may have to be made. The quiesce period is controlled by the 'Maximum Quiesce Period' ZPARM. Refer to the discussion about the Archive Log Parameters (DSNTIPA) panel in Part 2 of *DB2 Installation Guide*.

DSNJ318I ARCHIVE LOG COMMAND ALREADY IN PROGRESS

Explanation: An attempt was made to issue an ARCHIVE LOG command when an ARCHIVE LOG command was already in progress. In data sharing, the ARCHIVE LOG command currently in progress could be initiated by another member.

Operator Response: If the conflicting command satisfies your archival request, do not reissue the command. Otherwise, wait for the conflicting command to complete and then reissue the -ARCHIVE LOG command.

DSNJ319I *csect name* CURRENT ACTIVE LOG DATA SET IS THE LAST AVAILABLE ACTIVE LOG DATA SET. ARCHIVE LOG PROCESSING WILL BE TERMINATED.

Explanation: The -ARCHIVE LOG command was rejected because the current active log is the last available active log data set. To process the command when these conditions exist would cause the DB2 subsystem to exhaust its available active log resources and immediately halt processing.

System Action: Processing for the command is terminated. If the situation is not corrected, the DB2 subsystem will issue the DSNJ110E message (if it has not already done so) as the available active log data space reaches critically low levels. Ultimately, message DSNJ111E will be issued when the available active log data space is exhausted, and the DB2 online processing will halt until active log space is made available.

User Response: Notify the operator or system programmer.

Operator Response: To clear this condition, steps must be taken to complete other waiting off-load tasks. Once another active log is made available (re-usable) by completing the off-load process for it, the command processing for the current active log can proceed.

Execute an MVS *Display System Requests* command (D R,L for example) to determine the outstanding requests related to the log off-load process. Take the necessary action to satisfy any requests, and permit off-load to continue. If off-load fails to complete normally, or cannot be initiated, notify the systems programmer.

System Programmer Response: Either correct the problem that is causing the off-load process to fail, or

add more active log data sets. Note that the latter action requires DB2 to be down and the change log inventory (DSNJU003) utility to be run.

Possible causes for the shortage of active log data space are:

- Excessive logging. For example, too many users requesting logs at the same time, or too many utilities specifying LOG (YES).
- Delayed or slow off-loading. For example, failure to mount archive volumes, incorrect replies to off-load messages, or slow device speeds.
- Excessive use of the -ARCHIVE LOG command. Each invocation of the command causes the DB2 subsystem to switch to a new active log data set. Excessive use could consume the available active log data space if the resulting off-loads were not processed in a timely manner.
- Off-loads(s) failed (see Operator Response).
- Insufficient active log space (see Operator Response).

DSNJ320I *csect-name* UNABLE TO PROCESS LOG TRUNCATION REQUEST DUE TO SUBSYSTEM COMPONENT *action* FAILURE

Explanation: While processing an -ARCHIVE LOG command, an internal request was made of the log buffer output routine to force-write the log buffers and to truncate and switch the active log to the next available active log data set(s). The request failed during the processing of the 'action' specified in the message.

System Action: Processing for the command is terminated.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: This error is an internal error detected by the DB2 subsystem. The error may be caused by an unrelated ABEND in the Log Buffer Writer component (DSNJWxxx), by a -STOP DB2 MODE(FORCE) command, or by abnormal subsystem termination. Refer to messages and ABENDS which precede this message.

DSNJ321I UNABLE TO CONTINUE ARCHIVE LOG QUIESCE DUE TO INTERNAL SUBSYSTEM ERROR. ARCHIVE LOG PROCESSING WILL BE TERMINATED, AND UPDATE ACTIVITY AGAINST DB2 RESOURCES WILL BE RESUMED.

Explanation: An -ARCHIVE LOG command with the MODE(QUIESCE) option was processed by the DB2 subsystem. As part of the MODE(QUIESCE) processing, an attempt was made to stop all new update activity against DB2 resources. During the internal subsystem interaction between the log manager

and the recovery manager, an internal interface error was detected by the recovery manager.

System Action: The -ARCHIVE LOG MODE(QUIESCE) processing is terminated. This message will be followed by message DSNJ312I after all users and jobs quiesced by the MODE(QUIESCE) processing are resumed.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: This error is an internal error detected by the DB2 subsystem. Retry the -ARCHIVE LOG MODE(QUIESCE) command. If the error persists, the active log data sets may be switched using the -ARCHIVE LOG command without the MODE(QUIESCE) option.

DSNJ322I DISPLAY ARCHIVE REPORT FOLLOWS—

Explanation: This message is always generated as the title for the -DISPLAY ARCHIVE command report output. It precedes the other messages generated by this command.

The series of messages DSNJ323I through DSNJ329I provide the formatted report for -DISPLAY ARCHIVE.

DSNJ323I COUNT TIME

Explanation: The column headings for the list of parameter specifications generated by the -DISPLAY ARCHIVE command are displayed. The message number is not included in this message.

DSNJ324I (TAPE UNITS) (MIN,SEC)

Explanation: The format of the COUNT and TIME parameter specifications displayed by the -DISPLAY ARCHIVE command are shown. The message number is not included in this message.

DSNJ325I name count time

Explanation: This message, in combination with messages DSNJ323I and DSNJ324I, provides the parameter information that is a part of the -DISPLAY ARCHIVE report.

name Identifies the count and time values in the message line.

DSNZPARM

Values specified during DB2 installation.

CURRENT

Current values in the DB2 system.

count The value for COUNT as specified in name.

time The value for TIME as specified in name.

The message number is not included in this message.

DSNJ326I

Explanation: This message separates messages DSNJ325I and DSNJ327I that are generated by the -DISPLAY ARCHIVE command. The message number is not included in this message.

DSNJ327I ADDR STATUS CORR-ID VOLSER DATASET_NAME

Explanation: This message displays the column headings for the DISPLAY ARCHIVE report.

The message number is not included in this message.

DSNJ328I tapeaddr status corr-id vname dsname

Explanation: This message, in combination with message DSNJ327I, provides the tape unit information that is part of the -DISPLAY ARCHIVE report.

tapeaddr

The physical tape address of the tape unit allocated to read archive log.

status Status of tape address:

BUSY Tape address is actively processing an archive log data set.

PREM Tape address is active and allocated for premount.

AVAIL Tape unit is inactive and waiting for work.

corr-id The correlation id associated with the user of the tape being processed. If the status is PREM or AVAIL, this column might contain '*****', indicating no current user is associated with this tape.

vname The name of the tape volume that is mounted on the tape address.

dsname

The data set on the tape volume that is being processed (BUSY and PREM) or was last processed (AVAIL).

The message number is not included in this message.

DSNJ329I END OF DISPLAY ARCHIVE REPORT.

Explanation: This message follows messages DSNJ322I through DSNJ328I and indicates that the -DISPLAY ARCHIVE report was generated successfully. The message number is not included in this message.

DSNJ330I ARCHIVE LOG VOLUMES REQUIRED FOR CONNECTION ID conn-id CORRELATION ID corr-id

Explanation: This message is the title for the ARCHIVE LOG VOLUMES report output. The ARCHIVE LOG VOLUMES report lists the archive log volumes needed by the correlation ID for that connection ID. This message is generated automatically by the archive read process at the first archive log tape mount for corr-id. This message precedes the other messages generated by this action.

This message, in combination with messages DSNJ331I and DSNJ332I, provides the formatted report for the ARCHIVE LOG VOLUMES requested.

conn-id

An identifier representing the 'connection name' used to establish the thread.

corr-id

An identifier associated with a specified thread. In TSO, it is either the authorization ID or the job name.

DSNJ331I avolume, avolume, avolume, avolume ...

Explanation: This message provides the tape volume information for the Archive Log Volumes report output.

avolume

The name of the archive log volume required for this correlation ID. An 'avolume' prefixed with an '*' signifies that the data on the archive log volume is also mapped by an active log data set. As such, the 'avolume' **might not** be required for the read process, since the data is read from the active log, if possible.

DSNJ332I END OF ARCHIVE LOG VOLUMES REPORT

Explanation: This message follows messages DSNJ330I and DSNJ331I and indicates that the ARCHIVE LOG VOLUMES report was generated successfully. The message number is not included in this message.

DSNJ333I csect-name SYSTEM CHECKPOINT INITIATED

Explanation: This message indicates that the SET LOG command processed successfully and that a system checkpoint has been initiated.

DSNJ334I PARAMETER SPECIFIED ON THE keyword KEYWORD (VALUE) CONTAINS INVALID CHARACTERS

Explanation: A -SET ARCHIVE command was processed by the DB2 subsystem. One of the command

keywords specified a value that contains an invalid character.

System Action: Processing for the -SET ARCHIVE command is terminated. This message is followed by the DSN9023I message.

Operator Response: Refer to *DB2 Command Reference* for the syntax of the command. Correct the syntax and reenter the command.

DSNJ335I INVALID KEYWORDS COMBINATION IN SET ARCHIVE COMMAND

Explanation: This command requires that keyword COUNT or keyword TIME be specified. If both are omitted, the keyword DEFAULT must be specified. It is invalid to specify keyword DEFAULT when either the COUNT keyword or TIME keyword is specified.

System Action: Processing for the -SET ARCHIVE command is terminated. This message is followed by the DSN9023I message.

Operator Response: Refer to *DB2 Command Reference* for the syntax of the command. Correct the syntax and reenter the command.

DSNJ336I UNABLE TO ALLOCATE TAPE UNIT FOR conn-id corr-id, x ALLOCATED, y ALLOWED.

Explanation: An attempt to allocate a tape unit for connection ID 'conn-id' failed. The current maximum tape unit specified is 'y', but only 'x' are physically available.

System Action: The 'conn-id corr-id' process is queued until either an allocated tape unit becomes free or more tape units are varied online and made available to the DB2 archive read task.

Operator Response: This situation rectifies itself over time as currently allocated tape units become available. To improve throughput, vary additional tape units online and make them available to DB2. Note that a queue rescan is not attempted until the -SET ARC READ COUNT command is issued or when an allocated tape dismounts.

DSNJ337I SET ARCHIVE COMMAND COMPLETED COUNT(count) TIME(minute,second)

Explanation: This message indicates that the -SET ARCHIVE command processed successfully and displays the current values for COUNT and TIME.

count The value for the COUNT parameter

minute The 'minute' value for the TIME parameter

second The 'second' value for the TIME parameter

DSNJ338I NO TAPE ARCHIVE READING ACTIVITY

Explanation: This message indicates that there is no current archive tape reading activity to report.

The message number is not included in this message.

DSNJ339I *csect-name* SET LOG COMMAND COMPLETED, *type(quantity)*

Explanation: This message indicates that the SET LOG command processed successfully, and displays the current checkpoint frequency. The checkpoint frequency remains in effect until DB2 is restarted or until the value is modified by a SET LOG or SET SYSPARM command.

type Along with *quantity*, determines the current system checkpoint frequency. It indicates MINUTES for a time-based checkpoint frequency, or LOGRECORDS if the checkpoint frequency is determined by the number of log records that are written.

quantity The number of minutes, or the number of log records that determine the current checkpoint frequency.

DSNJ340I *csect-name* COMMAND KEYWORD *xxx* IS ONLY VALID FOR DATA SHARING

Explanation: An attempt was made to issue a DB2 command with KEYWORD *xxx* on a DB2 that was not initialized to participate in data sharing.

System Action: The command request is rejected.

DSNJ341I *csect-name* -ARCHIVE LOG COMMAND NOT ALLOWED, LOGGING IS SUSPENDED

Explanation: An attempt to issue an -ARCHIVE LOG command failed because a -SET LOG SUSPEND command has suspended logging.

System Action: Command processing terminates for the -ARCHIVE LOG command. You may reissue the command when logging has been resumed by the -SET LOG RESUME command.

DSNJ350I *csect-name* (A)SYNCHRONOUS ARCHIVE LOG COMMAND QUIESCE PROCESSING STARTED IN DATA SHARING

Explanation: The DB2 subsystem of a data sharing group accepted an ARCHIVE LOG command with the MODE(QUIESCE) option.

Each active DB2 member in the data sharing group performs the quiesce operation. The member originating

the quiesce issues message DSNJ350I; all other members issue DSNJ310I as they start quiescing.

DSNJ351I *csect-name* MEMBER *member name* STATUS=*member status*

Explanation: This message appears in response to MODE(QUIESCE) being specified with the ARCHIVE LOG command. It is one of a list of elements that display archive related status of the indicated member of the data sharing group. These member status messages are preceded by the message DSNJ359I and are followed by DSNJ361I.

member name identifies the member of the data sharing group.

member status indicates archive related status of the named member. It appears as one of the following:

ABNORMALLY TERMINATING

The named member was undergoing abnormal subsystem termination at the time ARCHIVE LOG processing was active for the data sharing group. ARCHIVE LOG command processing for the remainder of the data sharing group terminates unsuccessfully.

ARCHIVE ALREADY ACTIVE

ARCHIVE LOG command processing was running at the named member at the time a succeeding ARCHIVE LOG command was issued. The succeeding ARCHIVE LOG command terminates unsuccessfully for the remaining members of the data sharing group.

CANCELED

ARCHIVE LOG command processing for the named member was canceled due to a problem encountered elsewhere in the data sharing group. The quiesce operation is interrupted and terminated and update activity against DB2 resources is resumed before command processing is terminated for the member.

COMMUNICATIONS FAILURE

A communications failure occurred between the named member and one or more other members in the data sharing group. The quiesce operation is interrupted and update activity against DB2 resources is resumed before command processing is terminated for the member. ARCHIVE LOG command processing for the remainder of the data sharing group terminates unsuccessfully.

FAILED

The named member was inactive at the time the ARCHIVE LOG command was issued. Termination of the DB2 subsystem for this member was abnormal. This status, if displayed for any member, will cause ARCHIVE

LOG command processing for the entire data sharing group to terminate unsuccessfully.

NOT AVAILABLE

Archive command status for the named member could not be determined. This condition typically occurs when the named member fails to respond during ARCHIVE LOG command processing and is usually accompanied by message DSNJ353I and/or message DSNJ355I.

QUIESCED

The named member was active at the time the ARCHIVE LOG command was issued. Update activity against DB2 resources had successfully quiesced for that member (no active URs) in response to specifying MODE(QUIESCE).

QUIESCED/OFFLOADING

The named member was active at the time the ARCHIVE LOG command was issued. Update activity against DB2 resources had successfully quiesced for that member (no active URs) in response to specifying MODE(QUIESCE). The active log at the time was truncated and an offload process was initiated after all members in the data sharing group had reached a quiesce point.

STOPPED

The named member was inactive at the time the ARCHIVE LOG command was issued. Termination of the DB2 subsystem for this member was normal with no incomplete URs outstanding. Log truncation and offload processing are scheduled to be performed automatically the next time the named member is started. When the member is started, it is important to ensure that archive processing occurs automatically. Certain error conditions might require entering an ARCHIVE LOG command via the operator console to cause log truncation and offload processing to be performed. This member status is accompanied by warning message DSNJ362A.

TIME EXCEEDED

The named member could not quiesce its update activity within the allotted period of time. The incomplete quiesce operation is interrupted and update activity is resumed before command processing is terminated for the member. ARCHIVE LOG command processing for the remainder of the data sharing group is unsuccessfully terminated.

members were not available to receive the archive request. DSNJ351I messages follow to display the quiesced members.

At the next start up of the quiesced member, DB2 switches (truncates) the current active log and initiates the archive task.

DSNJ353I *csect-name* **DSNJ353I MEMBER** *member name* **NOT RESPONDING.**

Explanation: This message is displayed when a response is needed but not received within an expected period of time during ARCHIVE LOG MODE(QUIESCE) command processing. This can occur as a result of abnormal subsystem termination under the named member or, possibly from communications problems among members of the data sharing group.

Operator Response: Examine the console log of the named member for operator information messages that might relate to the problem.

DSNJ354I *csect-name* **DSNJ354I ARCHIVE LOG: ALL ACTIVE MEMBER(S) STARTED OFFLOAD TASKS**

Explanation: This message is displayed when MODE(QUIESCE) is specified with the ARCHIVE LOG command, after all active members in the data sharing group have successfully quiesced their update activity within the allotted time period. For each active member in the data sharing group, the active log is truncated and switched, and an offload task is initiated to begin the offload process. Log truncation, switch and offload processing for stopped (and quiesced) members is performed the next time they are started.

DSNJ355I *csect-name* **ARCHIVE LOG: ONE OR MORE ACTIVE MEMBERS FAILED TO RESPOND OR START OFFLOAD TASKS**

Explanation: This message is displayed when MODE(QUIESCE) is specified with the ARCHIVE LOG command, and one or more active members could not successfully quiesce their update activity in the time allotted. Subsystem activity already quiesced is resumed, and ARCHIVE LOG command processing terminates unsuccessfully for all active members in the data sharing group. Message DSNJ353I might also appear with this message.

Operator Response: See the list of DSNJ351I member status messages following message DSNJ359I to determine the reason for the archive command failure.

DSNJ352W *csect-name* **MEMBERS WERE NOT OFFLOADED**

Explanation: DB2 issues this message during processing of an ARCHIVE LOG command with the MODE(QUIESCE) option. One or more quiesced

DSNJ356I *csect-name* **COMMUNICATIONS FAILURE TERMINATED COMMAND**

Explanation: This message appears as a result of the failure of a communications request by one or more members of the data sharing group. This message is likely to be accompanied by DSN7xxx or other error messages and/or an SVC dump.

System Action: ARCHIVE LOG command processing terminates unsuccessfully for all members in the group.

DSNJ357E *csect-name* **SYSTEM QUIESCE FAILED**

Explanation: This message indicates the unsuccessful outcome of an ARCHIVE LOG MODE(QUIESCE) command. This message indicates that one or more members were unable to quiesce their update activity in the time allowed. It is usually accompanied by one or more related messages (e.g., DSNJ355I), and a list of member status messages indicating the reason for the failure.

Operator Response: Refer to messages DSNJ359I, DSNJ351I and DSNJ361I to determine archive related status of members in the data sharing group.

DSNJ359I **MEMBER RESPONSES**

Explanation: This message marks the beginning of a list of one or more DSNJ351I member status messages and precedes the first status message in the list.

DSNJ361I *csect-name* **END OF MEMBER RESPONSES LIST**

Explanation: This message marks the end of a list of one or more DSNJ351I member status messages and follows the last status message in the list.

DSNJ362E *csect-name* **WARNING: LOGS OF *nn* STOPPED OR FAILED MEMBERS NOT OFFLOADED.**

Explanation: This message is displayed when either MODE(QUIESCE) or SCOPE(GROUP) is specified with the ARCHIVE LOG command, and one or more members of the data sharing group either stopped or failed and were not available to receive the archive request. Active log truncation, log switch and offload processing for these inactive members is scheduled to be performed the next time those members are started.

Operator Response: Verify that log switch and offload processing does automatically occur when the inactive members are started. Certain error conditions might require the ARCHIVE LOG command to be individually issued for a member if ARCHIVE LOG processing does not occur automatically. Refer to messages DSNJ359I, DSNJ351I, and DSNJ361I to identify the inactive members.

DSNJ370I *csect-name* **LOG DISPLAY CURRENT COPY1 LOG = *dsname1* IS *pct%* FULL CURRENT COPY2 LOG = *dsname2* IS *pct%* FULL H/W RBA = *hw-rba*, H/O RBA = *ho-rba* FULL LOGS TO OFFLOAD = *nn* OF *mm*, OFFLOAD TASK IS *status***

Explanation: This message, in combination with message DSNJ371I, provides the output from the DISPLAY LOG command.

dsname1

The data set name of the current active log copy1 data set. If this copy of the log is not currently active, *dsname1* will display INACTIVE.

dsname2

The data set name of the current active log copy2 data set. If this copy of the log is not currently active, *dsname2* will display INACTIVE.

pct

The percentage of log space within the active log data set that has been written.

hw-rba

The RBA of the most recently written log record.

ho-rba

The highest log RBA that has been offloaded to an archive log data set.

nn

The number of full active log data sets that have not been archived.

mm

The total number of active log data sets.

status

Status of the offload task:

BUSY,ALLC

Task is busy, allocating an archive log data set. This could indicate a tape mount request is outstanding.

BUSY,BSDS

Task is busy, copying the BSDS data set.

BUSY,ACTV

Task is busy, copying an active log data set.

BUSY

Task is busy, other processing.

AVAILABLE

Task is available for work.

DSNJ371I **DB2 RESTARTED *time-date-1* RESTART RBA *rstrt-rba* CHECKPOINT FREQUENCY *quantity type* LAST SYSTEM CHECKPOINT TAKEN *time-date-2***

Explanation: This message, in combination with message DSNJ370I, provides the output from the DISPLAY LOG command.

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time-date-1

The time and date when DB2 started.

rstrt-rba

The RBA that DB2 began logging when started.

quantity

The number of minutes, or the number of log records that determine the current checkpoint frequency.

type

Along with quantity, determines the current system checkpoint frequency. It indicates MINUTES for a time-based checkpoint frequency, or LOGRECORDS if the checkpoint frequency is determined by the number of log records that are written.

time-date-2

The time and date of the last system checkpoint.

DSNJ372I *csect-name* **UPDATE ACTIVITY HAS BEEN SUSPENDED FOR *aaaa* AT RBA *xxxxxxxxxxxx*, LRSN *yyyyyyyyyyyy*, PRIOR CHECKPOINT RBA *zzzzzzzzzz***

Explanation: This message indicates that the -SET LOG command with the SUSPEND option has completed successfully.

System Action: All log and database update activity has been suspended for DB2 subsystem *aaaa*. *xxxxxxxxxxxx* contains the RBA of the last record written to the log. In a data sharing environment, *yyyyyyyyyyyy* contains the LRSN of the last record written to the log. Otherwise, *yyyyyyyyyyyy* contains the high written RBA. *zzzzzzzzzz* contains the RBA of the last system checkpoint.

Operator Response: Issue the -SET LOG command with the RESUME keyword when ready to resume update activity.

DSNJ373I *csect-name* **UPDATE ACTIVITY HAS BEEN RESUMED FOR *xxxx***

Explanation: This message indicates that the -SET LOG command with the RESUME option has completed successfully.

System Action: All log and database update activity has been resumed for DB2 subsystem *xxxx*.

DSNJ374I *csect-name* **SET LOG options COMMAND FAILED, *reason***

Explanation: A -SET LOG command has failed. *options* were specified on the command. *reason* describes the cause of the failure:

ALREADY SUSPENDED

A -SET LOG SUSPEND command was issued while update activity was suspended by a previous command.

DB2 STOPPING

A -SET LOG SUSPEND command was issued, but DB2 is stopping.

QUIESCE ACTIVE

A -SET LOG SUSPEND command was issued, but a system quiesce that was initiated by an -ARCHIVE LOG command is in progress.

NOT SUSPENDED

A -SET LOG RESUME command was issued, but update activity is not suspended.

COMMAND ABEND

A -SET LOG command abnormally terminated. Update activity is not suspended.

LOCK TIMEOUT

A lock timeout has occurred. Update activity is not suspended.

System Action: Command processing terminates.

DSNJ401I *csect-name* **rrrr RECORD NOT FOUND**

Explanation: An attempt was made to read the 'rrrr' record from the BSDS. In so doing, the read routine (DSNJU01B) could not find the record.

System Action: Utility processing continues. This message is written to the SYSPRINT data set, not to a console.

DSNJ402I **UNABLE TO LOCATE *aaaa* TBLSPACE NAME IN SYSTEM CATALOG OR DIRECTORY DATABASES**

Explanation: The table space name specified on the TBLSPACE parameter of the change log inventory (DSNJU003) utility SYSTEMDB statement could not be found in any DB2 subsystem catalog or directory database. The table space name in error is named in the '*aaaa*' message keyword.

System Action: All subsequent DSNJU003 utility statements are bypassed, and DSNJU003 processing is terminated with a return code of 4. The DB2 SYSTEMDB record is not updated.

This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the table space name specified on the TBLSPACE parameter, and resubmit the change log inventory (DSNJU003) utility job.

DSNJ403I CAPACITY OF BSDS SYSTEMDB RECORD EXCEEDED

Explanation: The BSDS SYSTEMDB record contains VSAM passwords for data sets in the DB2 catalog and directory, and has a maximum capacity of 168 entries. This message is issued when the number of eligible DB2 catalog and directory data sets exceeds the maximum capacity of the BSDS SYSTEMDB record. This is an internal error.

System Action: All subsequent change log inventory (DSNJU003) utility statements are bypassed, and DSNJU003 processing is terminated with a return code of 4. The DB2 SYSTEMDB record is not updated.

This message is written to the SYSPRINT data set, not to a console.

User Response: Notify the systems programmer.

DSNJ404E keyword NOT ALLOWED FOR operation OPERATION

Explanation: An invalid keyword was used during the operation named 'operation'.

System Action: The current utility processing is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement and rerun the utility.

DSNJ405E keyword1 KEYWORD MUTUALLY EXCLUSIVE WITH keyword2 KEYWORD

Explanation: 'keyword1' and 'keyword2' are mutually exclusive and cannot appear on the same control statement.

System Action: The current utility processing is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Determine the extraneous keyword and remove it from the control statement. Rerun the utility.

DSNJ406E EITHER keyword1 KEYWORD OR keyword2 KEYWORD MUST BE SPECIFIED

Explanation: A required keyword was not used on the control statement. Use either 'keyword1' or 'keyword2' with the attempted control statement type.

System Action: The current utility processing is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement and rerun the utility.

DSNJ407E csect-name NO VALID CHECKPOINT RBA FOUND

Explanation: After completing its search through the resource manager status table and the checkpoint queue, no valid checkpoint RBA was found within the specified range.

System Action: The current utility processing is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: The last 100 checkpoints are recorded in the BSDS, including the log STARTRBA and log ENDRBA of the checkpoint range. When either STARTRBA/STARTLRSN or ENDRBA/ENDLRSN are specified, the change log inventory (DSNJU003) utility attempts to locate a valid checkpoint in the range. In this case, DSNJU003 was unsuccessful in finding a valid checkpoint.

Do one of the following, as appropriate:

- If no checkpoint exists in the STARTRBA/ENDRBA range (STARTLRSN/ENDLRSN in Datasharing), set STARTRBA=ENDRBA and cold start DB2.
- If the ENDRBA/ENDLRSN is less than all recorded checkpoints or the STARTRBA/STARTLRSN is higher than all recorded checkpoints, then use DSN1LOGP to locate a valid checkpoint. Use DSN1LOGP SUMMARY(ONLY) option to find a valid checkpoint. Message DSN1153I is issued if any complete checkpoint is found. DSN1153I identifies the log RBA of the checkpoint. Update the CHKPTRBA parameter using the log RBA identified in DSN1153I and resubmit DSNJU003.

DSNJ408I csect-name CHECKPOINT RBA FOUND, RBA = rba, TIME = time

Explanation: After completing its search through the resource manager status table and the checkpoint queue, 'rba' was the most recent checkpoint RBA in the specified range and 'time' was the time of the checkpoint.

System Action: Utility processing continues.

DSNJ409I UNABLE TO WRITE ACTIVE LOG RECORD TO THE BSDS DATASET. DDNAME=xxxxxx

Explanation: A program encountered an I/O error when attempting to write a BSDS active log record to the BSDS data set. 'xxxxxx' is the DDNAME of the BSDS data set being accessed.

System Action: The program will terminate.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. This error is considered unrecoverable and will leave the BSDS data set in an uncertain state. It will

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be necessary to either: recreate the data set using access method service routines and then use change log inventory (DSNJU003) to make the active and archive log data set(s) known to the BSDS, or recover the BSDS using a backup copy.

DSNJ410E *csect-name* I/O ERROR DURING *nnn* PROCESSING OF *yyy* RECORD

Explanation: An I/O error occurred during a READ or WRITE of a record. 'nnn' is either READ or WRITE, depending on the operation. 'yyy' specifies the Conditional Restart control record, checkpoint queue record, archive log command history record, or resource manager status table.

System Action: The current utility processing is terminated. This message is written to the SYSPRINT data set, not to a console, and will be accompanied by message DSNJ212E or DSNJ213E.

User Response: Determine the cause of the I/O error based upon the error status information provided in messages DSNJ212E or DSNJ213E.

DSNJ411I *csect-name* CRESTART *nnnn* FOR CRCRID = *yyyy*, DDNAME = *ddname*

Explanation: A CRESTART request has just completed. 'nnnn' is either CREATE or CANCEL. 'yyyy' is the restart control record hexadecimal identifier and 'ddname' is the BSDS data set (SYSUT1 or SYSUT2) associated with the request.

System Action: Current utility processing continues. This message is written to the SYSPRINT data set, not to a console.

User Response: Note the record identifier for future reference.

DSNJ412E *csect-name* RESTART CONTROL RECORD NOT FOUND IN BSDS

Explanation: The CRESTART CANCEL keyword was specified but the conditional restart control record does not exist in the BSDS data set.

System Action: Current utility processing is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: CREATE the conditional restart control record prior to attempting the CANCEL function.

DSNJ413E *csect-name* INVALID LOG RANGE SCOPE OR CHECKPOINT SPECIFIED

Explanation: The values specified thru the STARTRBA, ENDRBA, and CHKPTRBA keywords are invalid.

System Action: Current utility processing is

terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Ensure that the log range values are correct and correspond to the other log range values either specified or defaulted. A valid log range is where STARTRBA is less than or equal to CHKPTRBA, and CHKPTRBA is less than ENDRBA. The STARTRBA must be less than or equal to the ENDRBA.

DSNJ414I *csect-name* COLD START WILL RESULT FROM THIS RESTART CONTROL RECORD. FORWARD AND BACKOUT SET TO NO.

Explanation: STARTRBA and ENDRBA are equal. A cold start will result if this restart control record is used during DB2 restart. No forward or backout processing will be performed.

System Action: CRESTART processing continues.

User Response: No additional actions are required if a cold start of the system is desired. If a cold start is not desired, reissue the CRESTART and either CANCEL the current restart control record, or CREATE a new restart control record.

DSNJ415E *csect-name* ENDRBA = *rba* IS INVALID, MUST BE A MULTIPLE OF 4K

Explanation: The specified ENDRBA at 'rba' is not a multiple of 4KB.

System Action: CRESTART processing is terminated.

User Response: Correct the ENDRBA value on the CRESTART statement and rerun the utility.

DSNJ416I WARNING - BSDS UTILITY TIMESTAMP MISMATCH DETECTED. PROCESSING CONTINUES.

Explanation: As a result of a change log inventory (DSNJU003) update, it was discovered that the SYSUT1 BSDS and SYSUT2 BSDS timestamps are unequal. Being unequal indicates the possibility of a BSDS mismatch.

System Action: Current utility processing continues.

User Response: Run the print log map (DSNJU004) utility against the SYSUT1 BSDS and SYSUT2 BSDS. Determine if each BSDS is current. If each BSDS is current, this warning can be ignored. If either BSDS is not current, delete the obsolete data set and define a replacement data set, then copy the current BSDS into the replacement data set.

**DSNJ417I REQUIRED xxxxxxxx PARAMETER FOR
yyyyyyyy OPERATION IS MISSING**

Explanation: A required parameter 'xxxxxxx' for a Log utility operation was missing from the Log utility control statement. The attempted operation is 'yyyyyyyy'.

System Action: The Log utility 'yyyyyyyy' operation does not perform its function. All subsequent Log utility control statements are processed. A nonzero return code is issued by the utility.

DB2 writes this message to the SYSPRINT data set, not to a console.

User Response: Add the missing parameter to the control statements associated with the specified operation and rerun the utility.

**DSNJ418I WARNING - A NOTREUSEABLE
ACTIVE LOG DATA SET WAS DELETED
FROM BSDS LOG INVENTORY,
STARTRBA=...,ENDRBA=...**

Explanation: The data set name specified on the DSNNAME parameter of the change log inventory (DSNJU003) utility DELETE statement was a NOTREUSABLE active log.

System Action: DSNJU003 processing continues, it will terminate with a return code of 4. This message is written to the SYSPRINT data set, not to a console.

User Response: No additional actions are required if a deletion of a NOTREUSABLE active log was desired. If this was not desired, recreate the deleted log by using the NEWLOG statement with the RBA values specified in the warning message.

**DSNJ419I UNABLE TO WRITE ARCHIVE LOG
RECORD TO THE BSDS DATASET.
DDNAME=xxxxxx**

Explanation: A program encountered an I/O error when attempting to write a BSDS archive record to the BSDS data set. 'xxxxxx' is the DDNAME of the BSDS data set being accessed.

System Action: The program will terminate.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. This error is considered unrecoverable and will leave the BSDS data set in an uncertain state. It will be necessary to either: recreate the data set using access method service routines and then use change log inventory (DSNJU003) utility to make the active and archive log data set(s) known to the BSDS, or recover the BSDS using a backup copy.

**DSNJ420I UNABLE TO WRITE BCR1 RECORD TO
BSDS DATASET. DDNAME=xxxxxx**

Explanation: A program encountered an I/O error when attempting to write the BSDS control record to the BSDS data set. 'xxxxxx' is the DDNAME of the BSDS data set being accessed.

Operator Response: Notify the system programmer.

System Programmer Response: One or more error messages describing the specific error preceded this message. Refer to the specific message(s) for error analysis and the appropriate action to take.

**DSNJ421I THE BSDS IS NOT AT THE PROPER
RELEASE LEVEL. DDNAME=xxxxxx**

Explanation: This message is issued when a program attempting to access The BSDS data set is not at a compatible release level. This can be one of the following:

- The program accessing the BSDS data set is at a NEW release level and the BSDS is at the old level.
- The program accessing the BSDS data set is at an OLD release level and the BSDS is at the NEW level.
- The program encountered an UNKNOWN release level on the BSDS data set.

System Action: The program will terminate with no action taken.

System Programmer Response: If the program that encountered the error was one of the BSDS conversion programs (DSNJMIG0 or DSNJFAL0) an unrecoverable error was found on the BSDS data set and it must be recreated. If the error was encountered running some other utility program (i.e., change log inventory or print log map), one of the following actions may be taken:

- Run a version of the program that is compatible with the release level of the BSDS.
- Run the appropriate formatting program (DSNJMIG0 or DSNJFAL0) to convert the BSDS data set to a release level compatible with the running program. If this was successful, rerun the original program.

**DSNJ422I LOG RECORDS HAVE ALREADY BEEN
FORMATTED - THIS UTILITY WILL
TERMINATE**

Explanation: This message will occur when one of the BSDS formatting programs detects the BSDS had already been re-formatted or was already at the desired format level.

System Action: The program will terminate without any action being taken.

System Programmer Response: If the appropriate BSDS formatting program was being run, no further action is necessary.

DSNJ423I ACTIVE LOG MAY NOT HAVE BEEN ARCHIVED. DSN=xxxxxx

Explanation: The program was attempting to convert an old BSDS data set with more than 31 active log data sets to the new format. The program will drop the oldest active log data set(s) to get to the new maximum (31) limit. When dropping one of the old active log data sets from the BSDS, it was found to have been flagged as NOT REUSABLE (i.e., this data set MAY NOT have been archived). 'xxxxxx' will contain the data set name of the active log in question.

System Action: The program will remove this active log data set from the BSDS and continue.

System Programmer Response: Check to see if this data set had been archived. The active log data set was not deleted on disk but removed only from the BSDS data set, so it may still be archived, if needed. Use access method service routines to copy the VSAM active log data set to a sequential archive log data set.

DSNJ424I csect-name INVALID CONTROL STATEMENT. THE SECOND WORD MUST BE 'DDNAME' OR '*' OR MUST START WITH A PARENTHESIS.

Explanation: The control statement is invalid.

System Action: The control statement is ignored. DB2 uses the SYSUT1 DD statement to locate the BSDS to be mapped. If the SYSUT1 DD statement is not available, the utility terminates.

User Response: Refer to *DB2 Utility Guide and Reference* for information on creating a print log map (DSNJU004) utility control statement. Correct or remove the control statement and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 32.

DSNJ425I INVALID xxxxxx VALUE/FORMAT FOR yyyyyyyy PARAMETER (YYYYDDHHMMSST)

Explanation: 'xxxxxx' is the field in the 'yyyyyyy' parameter that contains an incorrect value or incorrect format.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement and rerun the utility.

DSNJ426I ENDTIME VALUE CANNOT BE LESS THAN STARTIME VALUE

Explanation: The 'STARTIME' and 'ENDTIME' parameters specify a time range. Hence, the ENDTIME value must be equal to or greater than STARTIME value.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement and rerun the utility.

DSNJ427I CHECKPOINT RECORD ADDED TO QUEUE

Explanation: The checkpoint record specified has been added to the checkpoint queue.

System Action: The BSDS checkpoint queue is modified as stated. This message is written to the SYSPRINT data set, not to a console.

DSNJ428I CHECKPOINT RECORD DELETED FROM QUEUE, STARTRBA=startrba, ENDRBA=endrba

Explanation: The checkpoint record specified has been deleted from the Checkpoint Queue. 'startrba' and 'endrba' was the RBA range indicated in the deleted checkpoint record.

System Action: The BSDS checkpoint queue is modified as stated. This message is written to the SYSPRINT data set, not to a console.

DSNJ429I RBA RANGE CONFLICTS WITH EXISTING CHECKPOINT RECORD RBA RANGE

Explanation: The specified RBA range for the new checkpoint record either exists or overlaps an existing RBA range in the checkpoint queue.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Run the print log map (DSNJU004) utility against the SYSUT1 BSDS and SYSUT2 BSDS. Determine the correct RBA range and correct the STARTRBA and ENDRBA parameters and rerun the utility.

DSNJ430I SPECIFIED ENTRY CANNOT BE ADDED WITHOUT OVERLAYING EXISTING LOWEST ENTRY

Explanation: The specified RBA range for the new checkpoint record is less than the existing lowest entry. The checkpoint queue is currently full and cannot add

the new entry without overlaying the lowest entry.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Run the print log map (DSNJU004) utility against the SYSUT1 BSDS and SYSUT2 BSDS. Determine the lowest existing entry and either change the STARTRBA and ENDRBA parameters or delete the existing lowest entry and add the new low checkpoint entry and rerun the utility.

DSNJ431I STARTRBA SPECIFIED NOT FOUND IN CHECKPOINT QUEUE

Explanation: The specified STARTRBA could not be located in the checkpoint queue.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Run the print log map (DSNJU004) utility against the SYSUT1 BSDS and SYSUT2 BSDS. Determine the correct STARTRBA value and correct the STARTRBA parameter and rerun the utility.

DSNJ432I THE OFFLRBA VALUE MUST END WITH 'FFF'

Explanation: The OFFLRBA value is invalid. It must end with 'FFF'.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement and rerun the utility.

DSNJ433I *csect-name* INVALID CONTROL STATEMENT. A MEMBER LIST MUST CONTAIN AT LEAST ONE MEMBER NAME.

Explanation: The control statement is invalid. The member list is either empty or in the wrong format.

System Action: The control statement is ignored. DB2 uses the SYSUT1 DD statement to locate the BSDS to be mapped. If the SYSUT1 DD statement is not available, the utility terminates.

User Response: Refer to *DB2 Utility Guide and Reference* for information on creating a print log map (DSNJU004) utility control statement. Correct or remove the control statement and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 32.

DSNJ434I *csect-name* SYSIN MUST CONTAIN AT LEAST ONE RECORD.

Explanation: A SYSIN DD statement was provided, but the data set was null, or the JCL statement "//SYSIN DD *" was immediately followed by the statement "/*".

System Action: The error is ignored. DB2 uses the DD SYSUT1 statement to locate the BSDS to be mapped. If the SYSUT1 DD statement is not available, the utility terminates.

User Response: Refer to *DB2 Utility Guide and Reference* for information on creating a print log map (DSNJU004) utility control statement. Correct or remove the control statement and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 32.

DSNJ435I *csect-name* THE MEMBER LIST OF A CONTROL STATEMENT MUST BE TERMINATED WITH A PARENTHESIS.

Explanation: The control statement contained the correct format for starting a list of members, but the terminating parenthesis was not found.

System Action: The control statement is accepted with an assumed parenthesis after the last member name recognized, and processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for information on creating a print log map (DSNJU004) utility control statement. Correct or remove the control statement and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 32.

DSNJ436I *csect-name* THE DD STATEMENT FOR *ddname* IS MISSING.

Explanation: The print log map (DSNJU004) utility requested information about the identified *ddname* from the MVS Dynamic Allocation facility, but the DD statement was not found in the job.

System Action: The job is terminated.

User Response: Refer to *DB2 Utility Guide and Reference* for information on required JCL statements. Correct the JCL and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 32.

DSNJ437I *csect-name* **UNABLE TO ALLOCATE BSDS** *dsname*. **SVC 99 RTN CODE rc, RSN CODE rsncd, INFO infocd.**

Explanation: The print log map (DSNJU004) utility attempted to allocate a BSDS data set using the MVS Dynamic Allocation facility, but the system was unable to complete the allocation. The return code, reason code, and information code were returned by the system's SVC 99 facility. See *MVS/ESA Programming: Authorized Assembler Services Guide* for an explanation of these codes.

System Action: The processing of the BSDS named in the message is terminated. If this is the last (or only) BSDS to be processed by this job, the job is terminated.

User Response: Refer to *DB2 Utility Guide and Reference* for information on required JCL statements. Correct the JCL and rerun the job.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Utility Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 32.

DSNJ438I *csect-name* **THE xxx VALUE MUST END WITH 'yyy'**

Explanation: The STARTRBA or ENDRBA value specified on the NEWLOG statement is invalid. 'xxx' is either STARTRBA or ENDRBA, depending on which parameter is invalid. If 'xxx' equals STARTRBA, then 'yyy' equals '000' and if 'xxx' equals ENDRBA, then 'yyy' equals 'FFF'.

System Action: The current utility is terminated. This message is written to the SYSPRINT data set, not to a console.

User Response: Correct the control statement and rerun the utility.

DSNJ439I *csect_name* **NEW FUNCTION MODE REQUIRED FOR xxxxxx OPERATION**

Explanation: An attempt was made to run a log utility requiring New Function mode while DB2 was in

Compatibility mode or Enabling New Function mode.

DB2 must be in New Function mode before the utility program can run successfully. xxxxxx is the name of the attempted operation requiring New Function mode.

System Action: The program will terminate with no action taken.

System Programmer Response: Convert DB2 to New Function mode and retry the program.

DSNJ440I **BSDS HAS ALREADY BEEN CONVERTED, DDNAME=nnnnnnnn**

Explanation: This message occurs when the BSDS conversion program DSNJCNVB detects that the BSDS data set that was specified by DDNAME nnnnnnnn has already been converted.

System Action: If only SYSUT1 was specified, or both SYSUT1 and SYSUT2 data sets have already been converted, the program will terminate with no action taken. In the case where both are specified, but only SYSUT1 was previously converted, the program will continue to process the conversion for SYSUT2.

System Programmer Response: No further action is necessary.

DSNJ441I **INVALID BSDS CONVERSION, DDNAME=xxxxxx**

Explanation: This message is issued when a program attempting to access the BSDS data set encounters an invalid BSDS. An invalid BSDS is the result of a failure during a prior attempt to run conversion program DSNJCNVB. xxxxxx is the DDNAME of the BSDS data set being accessed.

System Action: The program will terminate with no action taken.

System Programmer Response: The procedure for running program DSNJCNVB includes making a copy of the BSDS prior to conversion. Restore the BSDS to the original pre-conversion copy, and retry the conversion. Once the conversion is successful, retry the program.

DSNJ700I *csect_name* **ERROR ATTEMPTING TO ACCESS BSDS FOR PEER MEMBER ID= member-id, MEMBER NAME= member-name, REASON-CODE= reason-code.**

Explanation: DB2 issues this message to identify the peer member ID, and if known, the peer member name associated with listed DB2 reason code.

System Action: An execution unit issues this message and then, if this was an unconditional request, writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates.

Operator Response: Collect all relevant diagnostic

materials, including SYS1.LOGREC, SVC dump, and console output of peer and host.

System Programmer Response: Review the explanation for the associated DB2 reason code for further action.

DSNJ701E *csect-name* **MEMBER NAME (*membername*) IN BSDS DOES NOT MATCH MEMBER NAME (*membername*) IN DB2 SYSTEM PARAMETERS** *dsnzparm*

Explanation: During startup, DB2 detected that the member name listed in its bootstrap data set (BSDS) does not match the member name in the DB2 system parameters load module.

Operator Response: Notify the system programmer.

System Programmer Response: Restore the BSDS or specify a different system parameters load module on the START DB2 command.

DSNJ702E *csect_name* **GENERIC LU NAME *lu-name* IN BSDS DOES NOT MATCH THE GENERIC LU NAME *lu-name* ASSOCIATED WITH THE DATA SHARING GROUP.**

Explanation: DB2 issues this message during startup when it detects that the generic LU name in the bootstrap data set (BSDS) does not match the generic LU name in the shared communications area (SCA) structure.

System Action: DB2 startup continues.

Operator Response: Notify the system programmer.

System Programmer Response: Depending on the accuracy of the BSDS value, take one of the following actions:

- BSDS value is correct: DB2 startup will automatically replace the generic LU name in the SCA with the correct value. The BSDS for each member of this DB2 data sharing group must specify this same value for generic LU name. If any member specifies a different value for generic LU name, use the change log inventory utility (DSNJU003) to change the generic LU name, as described in *DB2 Utility Guide and Reference*.
- BSDS value is not correct: DB2 startup will replace the generic LU name in the SCA. The SCA value will be incorrect when startup is complete. Take the following actions to correct this situation:
 - Stop this DB2 subsystem.
 - Use the change log inventory utility (DSNJU003) to change the generic LU name of this member, as described in *DB2 Utility Guide and Reference*.

- Issue START DB2 for this member. START DB2 will correct the generic LU name contained in the SCA.

DSNJ703E *csect-name* **GROUP NAME (*groupname*) IN BSDS DOES NOT MATCH GROUP NAME (*groupname*) IN DB2 SYSTEM PARAMETERS** *dsnzparm*

Explanation: During startup, DB2 detected that the group name listed in its bootstrap data set (BSDS) does not match the group name in the DB2 system parameters load module.

Operator Response: Notify the system programmer.

System Programmer Response: Restore the BSDS or specify a different system parameters load module on the START DB2 command.

DSNJ704I *csect-name* **NEW MEMBER(*member-name*) START-UP NOT ALLOWED WHEN GROUP-RESTART IS REQUIRED FOR GROUP(*group-name*).**

Explanation: One of the following occurred:

- A new member *member-name* tried to start when a group restart of data sharing group *group-name* is required.
- A member other than the originating member of a data sharing group attempted to start the new DB2 data sharing group. The originating member of a group is either an existing DB2 subsystem which formed the data sharing group or a new DB2 subsystem which was installed to form the group.

System Action: The DB2 subsystem stops.

Operator Response: Start a previously active member of this group. When the required group restart is completed, start the new member again.

If this is the very first startup of the group, you must start the originating member first before starting any other member.

DSNJ705I *csect-name* **THE DB2 SYSTEM PARAMETERS SPECIFY DATA SHARING, BUT THE BSDS SPECIFIES NON-DATA SHARING.**

Explanation: The system parameters passed on the DB2 start command specified data sharing, but the bootstrap data set (BSDS) did not indicate this DB2 is a data sharing member.

System Action: The DB2 subsystem stops.

Operator Response: If this DB2 should be a member of a data sharing group, inform the system programmer. If this DB2 is not a member of a data sharing group, restart DB2 with the correct system parameters load module

System Programmer Response: If this DB2 should be a member of a data sharing group, execute the installation job DSNTIJUZ, which updates the BSDS for data sharing.

If this DB2 is not a member of a data sharing group, reassemble the system parameters load module and specify DSHARE=NO.

If this DB2 is attempting to disable the data sharing group, then reassemble the system parameters load module and specify DSHARE=NO, then execute the installation job DSNTIJGF, and then restart this DB2. Job DSNTIJGF must be used with caution, this will disable the data sharing group. For more information, see Chapter 2 of *DB2 Data Sharing: Planning and Administration*.

DSNJ706I *csect-name* **THE DB2 SYSTEM PARAMETERS SPECIFY NON-DATA SHARING, BUT THE BSDS SPECIFIES DATA SHARING.**

Explanation: The system parameters passed on the DB2 START command specified non-data sharing, but the bootstrap data set (BSDS) indicates this is a data sharing member.

System Action: The DB2 subsystem stops.

Operator Response: If this DB2 is a member of a data sharing group, restart DB2 with the correct system parameters load module. If this DB2 is not a member of a data sharing group, inform the system programmer.

System Programmer Response: If this DB2 should be a member of a data sharing group, reassemble the system parameters load module and specify DSHARE=YES. If this DB2 is not a member of a data sharing group, execute the installation job DSNTIJGF, which updates the BSDS for non-data sharing.

DSNJ707E *csect_name* **LOCATION NAME location-name IN BSDS DOES NOT MATCH THE LOCATION NAME location-name ASSOCIATED WITH THE DATA SHARING GROUP.**

Explanation: DB2 issues this message during startup when it detects that the LOCATION name in the bootstrap data set (BSDS) does not match the LOCATION name in the system communications area (SCA) structure.

System Action: DB2 startup continues.

Operator Response: Notify the system programmer.

System Programmer Response: Depending on the accuracy of the BSDS value, take one of the following actions:

- BSDS value is correct: DB2 startup will automatically replace the LOCATION name in the SCA with the correct value. The BSDS for each member of this

DB2 data sharing group must specify this same value for LOCATION. If any member specifies a different value for LOCATION, use the change log inventory utility (DSNJU003) to change the LOCATION name, as described in *DB2 Utility Guide and Reference*.

- BSDS value is not correct: DB2 startup will replace the LOCATION name in the SCA. The SCA value will be incorrect when startup is complete. Take the following actions to correct this situation:
 - Stop this DB2 subsystem.
 - Use the change log inventory utility (DSNJU003) to change the LOCATION name of this member, as described in *DB2 Utility Guide and Reference*.
 - Issue START DB2 for this member. START DB2 will correct the LOCATION name contained in the SCA.

DSNJ708I *csect-name* **NEW MEMBER START-UP IS NOT ALLOWED WHEN THE DATA SHARING GROUP IS IN SYSTEM RECOVER PENDING MODE**

Explanation: A new data sharing member attempted to join the data sharing group when the data sharing group is in System Recover Pending mode.

System Action: DB2 startup terminates.

Operator Response: When the data sharing group is no longer in System Recover Pending mode, start the new member again.

DSNJ711E *csect-name* **SCA OPEN FAILURE ENCOUNTERED.**

Explanation: A failure occurred during command processing in an attempt to open an object in the SCA.

System Action: Command processing terminates unsuccessfully.

System Programmer Response: Obtain SYS1.LOGREC and possible SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx and/or SVC dump messages that could relate to this problem.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNJ712E *csect-name* **SCA READ FAILURE ENCOUNTERED.**

Explanation: A failure occurred during command processing attempting to read from the SCA.

System Action: Command processing terminates unsuccessfully.

System Programmer Response: Obtain SYS1.LOGREC and possible SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx and/or SVC dump messages that could relate to this problem.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNJ713E *csect-name* **SCA WRITE FAILURE ENCOUNTERED.**

Explanation: A failure occurred during command processing attempting to write to the SCA.

System Action: Command processing terminates unsuccessfully.

System Programmer Response: Obtain SYS1.LOGREC and possible SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx and/or SVC dump messages that could relate to this problem.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNJ990I *csect-name* **SHOWCB ERROR, RETURN CODE = error-code**

Explanation: SHOWCB failed with error-code *error-code*. An error-code of 4 means that the log data set was allocated greater than 4 gigabytes in size, which is not supported.

Severity: 8 (error).

System Action: Processing terminates.

User Response: Notify the system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedure. Refer to *z/OS DFSMS: Macro Instructions for Data Sets*. If the log data set was allocated greater than 4 gigabytes in size, reallocate the data set less than 4 gigabytes in size.

DSNJ991I *csect-name* **START OF LOG DATA SET PREFORMAT FOR JOB** *job-name*
step-name

Explanation: The active log data set preformat utility has started.

Severity: 0 (informational)

DSNJ992I *csect-name* **LOG DATA SET NAME =**
data-set-name

Explanation: The indicated *data-set-name* is to be preformatted.

Severity: 0 (informational)

DSNJ993I *csect-name* **LOG DATA SET IS NOT A VSAM DATA SET**

Explanation: The input log dataset is not a VSAM data set.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Use the AMS IDCAMS Service to define the active log data set as a VSAM Linear data set.

DSNJ994I *csect-name* **VSAM OPEN ERROR,**
ACBERRFLG = error-code

Explanation: VSAM OPEN failed with the indicated ACB *error-code*.

Severity: 8 (error) if error is greater than or equal to 128; otherwise, 4 (warning)

System Action: Processing terminates if the error code is greater than or equal to 128; otherwise, processing continues normally.

User Response: Notify the system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedure. Refer to *z/OS DFSMS: Macro Instructions for Data Sets*. See also *MVS/DFP V3R3 Diagnosis Guide* for more information about the VSAM procedures.

DSNJ995I *csect-name* **VSAM PUT**
ERROR,RPLERREG = return-code,
RPLERRCD = reason-code

Explanation: VSAM PUT failed with the indicated *return-code* and *reason-code*.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Notify system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedure. Refer to *z/OS DFSMS: Macro Instructions for Data Sets*. See also *MVS/DFP V3R3 Diagnosis Guide* for more information about the VSAM procedures.

DSNJ996I *csect-name* **LOG PREFORMAT**
COMPLETED SUCCESSFULLY,nn
RECORDS FORMATTED

Explanation: The active log data set has been preformatted successfully. 'nn' records (or VSAM control intervals) have been formatted.

Severity: 0 (informational)

DSNJ997I • DSNJ998I

DSNJ997I *csect-name* **LOG PREFORMAT
TERMINATED**

Explanation: Preformatting of the active log data set did not complete successfully.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Examine other error messages associated with this job.

DSNJ998I *csect-name* **LOG DATA SET IS NOT
EMPTY**

Explanation: The input log data set is not an empty data set. The input data set must be empty to prevent the loss of actual log data.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Use the AMS IDCAMS Service to delete and redefine the active log data set or correct the input log data set name.

Chapter 12. DSNL... Messages

DSNL001I DDF IS ALREADY STARTED

Explanation: The distributed data facility (DDF) was already active when you issued -START DDF command.

System Action: The issued command is not executed.

DSNL002I DDF IS ALREADY STOPPED

Explanation: The distributed data facility (DDF) had already been stopped when the -STOP DDF command was issued.

System Action: The issued command is not executed.

DSNL003I DDF IS STARTING

Explanation: The distributed data facility (DDF) -START command is starting.

System Action: DB2 begins processing the -START DDF command.

DSNL004I *csect* **DDF START COMPLETE**
LOCATION *locname* **LU** *netname.luname*
GENERICLU *netname.gluname* **DOMAIN**
domain **TCPPORT** *tcpport* **RESPORT**
resport

Explanation: The distributed data facility (DDF) started.

locname

The LOCATION of the DB2 subsystem.

netname.luname

The fully qualified LU name for the DB2 subsystem.

netname.gluname

The fully qualified VTAM generic LU name for the DB2 subsystem. The value '-NONE' indicates that no VTAM generic LU name is used by the DB2 subsystem.

domain

For non-data sharing systems, domain is the name returned by the DNS for the system's default IP address. For data sharing systems, domain is the name that represents the DB2 group. For the remote DB2 data sharing group, the DRDA requester should use a domain name of the following form:

location.sysplex.domainname

where *location* is the DB2 location name, *sysplex* is the sysplex name in the COUPLExx parmlib member and *domainname* is the domain name specified in the TCPIP.DATA file. If you are an MVS requester, the domain name is specified in column IPADDR of catalog table

SYSIBM.IPNAMES. If you are a DB2 Connect requester, the CATALOG TCPIP NODE command (or the equivalent command for your environment) is used to specify the TCP/IP domain name. The value '-NONE' indicates that TCP/IP is not supported, TCP/IP initialization failed, or DB2 has been started in restricted access mode.

tcpport The TCP/IP port number used by this DB2 subsystem to accept incoming DRDA connection requests.

- A zero indicates TCP/IP is not supported. The BSDS DDF record is not configured with a PORT.

- A value of '-NONE' indicates that DB2 will not accept connections on this port. This may be due to specifying 0 for the DSN6SYSP MAXDBAT installation parameter defined in DSNZPARM. For more information, see the "MAX REMOTE ACTIVE" specification of the DSNTIPE installation panel in the *DB2 Installation Guide*.

resport The TCP/IP port number used by this DB2 subsystem to accept incoming two-phase commit resynchronization requests.

A zero indicates TCP/IP is not supported. The BSDS DDF record is not configured with a RESPOR.

System Action: The DDF start up process completed. However, it might fail for reasons specified by messages DSNL013I, DSNL015I, DSNL016I, DSNL017I, DSNL018I, DSNL019I, DSNL700I, or DSNL705I.

System Programmer Response: Use the recommended domain name when configuring network definitions for TCP/IP requesters.

DSNL005I DDF IS STOPPING

Explanation: The distributed data facility (DDF) -STOP command has been initiated.

System Action: The -STOP DDF command is initiated.

DSNL006I DDF STOP COMPLETE

Explanation: The distributed data facility (DDF) -STOP command has completed.

System Action: The DDF has stopped.

DSNL007I DDF IS ABNORMALLY TERMINATING

Explanation: Abnormal termination of the distributed data facility (DDF) has started.

System Action: Abnormal termination of the DDF is starting.

DSNL008I DDF ABNORMAL TERMINATION COMPLETE

Explanation: Abnormal termination of the distributed data facility (DDF) has completed.

System Action: The DDF has stopped.

**DSNL009I INVALID DDF THREAD
logical-unit-of-work-id SPECIFIED**

Explanation: No distributed transaction with the specified 'logical-unit-of-work-id' exists.

System Action: The specified thread is not canceled.

User Response: Determine the correct 'logical-unit-of-work-id' of the distributed thread that is to be canceled and then reissue the command.

Problem Determination: Determine the correct value. The -DISPLAY THREAD command can be used to display all distributed activity.

DSNL010I DDF THREAD logical-unit-of-work-id HAS BEEN CANCELED

Explanation: The distributed data facility (DDF) thread 'logical-unit-of-work-id' was canceled.

If 'logical-unit-of-work-id' is an LUWID (LU network name and an LUW instance number) instead of an LUWID TOKEN, then in rare circumstances more than one DDF thread might be canceled.

This situation only arises when an application accesses the same DB2 server by different access paths (for example, A->B->C and A->D->C). In such a case, multiple threads with the same LUWID exist at the server (for example, C). If CANCEL DDF THREAD is issued at the server specifying this LUWID, every thread at the server with the LUWID is canceled.

System Action: The specified thread is canceled.

DSNL011I VTAM STOPPING DDF

Explanation: The operator issued a HALT NET command to terminate VTAM.

System Action: The distributed data facility (DDF) -STOP command is initiated.

DSNL012I VTAM TERMINATING DDF

Explanation: The operator issued a HALT NET QUICK command or a HALT NET CANCEL command, or VTAM is terminating abnormally. This message can be issued any time after -START DDF and occurs when VTAM is stopped, which can occur prior to DDF termination. This message is not issued when DDF terminates normally.

System Action: Termination of the distributed data facility is initiated.

**DSNL013I VTAM OPEN ACB FAILED
ERROR=error-code**

Explanation: VTAM returned a nonzero return code after DB2 invoked the OPEN ACB macro instruction during termination of the distributed data facility (DDF). VTAM return codes for OPEN error conditions are defined in *VTAM for MVS/ESA Programming*.

System Action: Termination of the distributed data facility is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of the OPEN ACB failure, correct the error, and issue the -START DDF command.

Problem Determination: Refer to *VTAM for MVS/ESA Programming* for failure analysis during an OPEN macro instruction.

**DSNL014I VTAM CLOSE ACB FAILED
ERROR=error-code**

Explanation: VTAM returned a nonzero return code after DB2 invoked the CLOSE ACB macro instruction during termination of the distributed data facility (DDF). VTAM return codes for CLOSE error conditions are defined in *VTAM for MVS/ESA Programming*.

System Action: Termination of DDF continues.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of the failure, fix the error condition, and then issue the -START DDF command.

Problem Determination: Refer to *VTAM for MVS/ESA Programming* for failure analysis during a CLOSE macro instruction.

**DSNL015I VTAM SETLOGON FAILED
RTNCD=error-code FDBK2=open-flags**

Explanation: VTAM returned a nonzero return code after DB2 invoked the SETLOGON macro during initialization of the distributed data function (DDF). VTAM return codes are defined in *VTAM for MVS/ESA Programming*.

System Action: Termination of the DDF is started.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *VTAM for MVS/ESA Programming* to determine the cause of the failure. After the error is fixed, issue the -START DDF command.

DSNL016I DDF RECORD NOT FOUND IN BSDS

Explanation: DDF cannot find the DDF communication record in the BSDS.

System Action: DDF termination process is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Use the change log inventory to add the DDF communication record to the BSDS.

Problem Determination: Collect the following diagnostic item:

- Print the contents of the BSDS using the print log map utility.

DSNL017I INVALID DDF RECORD FOUND IN BSDS

Explanation: A invalid or incomplete DDF communication record was found in the BSDS.

System Action: DDF termination process is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Use the change log inventory to add a valid DDF communication record to the BSDS.

Problem Determination: Collect the following diagnostic item:

- Print the contents of the BSDS using the print log map utility.

DSNL018I VSAM ERROR READING DDF RECORD IN BSDS RPLERRCD=*error-code*

Explanation: A VSAM GET command was issued that resulted in a nonzero return code. RPLERRCD '*error-code*' is the VSAM return code.

System Action: Termination of the distributed data facility (DDF) is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of the failure, fix the error condition, and issue the -START DDF command.

The cause of the failure is dictated by the VSAM return code. The BSDS may have to be recovered by using a backup copy.

Problem Determination: Refer to the appropriate VSAM publications.

DSNL019I VTAM DOES NOT SUPPORT APPC FUNCTIONS

Explanation: The installed release of VTAM does not support the advanced program-to-program communications (APPC) application program interface (API). The APPC API bit is not set in the VTAM function-list vector in the access-method-support vector list.

System Action: Termination of the distributed data facility (DDF) is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine whether the installed release of VTAM supports the APPC API. If VTAM does not support the APPC API, a VTAM release that supports the APPC API must be installed before the DDF can be started.

DSNL020I KEYWORD 'THREAD' PARAMETER *parameter* FORMAT IN ERROR

Explanation: The parameter value specified for the logical-unit-of-work ID on the CANCEL DDF THREAD has an invalid format. The correct form is '*netid.luname.luwunique*', where:

netid A 1- to 8-character network ID.

luname A 1- to 8-character luname.

luwunique A 12-character hex number.

Luname and luwunique are separated by a '.' delimiter. Netid is optional. If netid is specified, then netid and luname are separated by a '.' delimiter. If netid is not specified, then the '.' delimiter before luname is not present.

System Action: The specified thread is not canceled.

User Response: Determine the correct logical-unit-of-work ID of the distributed thread that is to be canceled and reissue the command.

Problem Determination: Determine the correct value. The -DISPLAY THREAD command can be used to display all distributed activity.

DSNL021I *command* ACCEPTED

Explanation: The '*command*' command has been accepted and asynchronous processing of '*command*' has been initiated. The command can only be -START or -STOP the distributed data facility.

System Action: The command was accepted and asynchronous processing has been initiated.

DSNL022I *csect-name* **DDF THREAD**
logical-unit-of-work-id **WAS PREVIOUSLY**
CANCELED

Explanation: A command to cancel the distributed data facility (DDF) thread *logical-unit-of-work-id* was previously issued. Either the CANCEL DDF THREAD or the CANCEL THREAD command was entered. The thread is currently being canceled. The CANCEL command terminates a thread only if the thread is processing in DB2 or is currently suspended by DB2. The thread might not be processing in DB2 in these situations:

- The thread is processing in the application and has not made a request to DB2. The DISPLAY THREAD command indicates this.
- The user placed the thread on an MVS resource using the ENQUE command. The CANCEL command has no effect on the thread until ENQUE completes and the thread returns to DB2.
- The thread is processing in VTAM and is waiting for a response from a partner. The DISPLAY THREAD DETAIL command indicates this. In this case the thread does not terminate until VTAM returns to DB2. VTAM commands, which will terminate the session or LU, can be used to cause VTAM to return to DB2.

DSNL023I **DDF IS ALREADY IN THE PROCESS**
OF STARTING

Explanation: The distributed data facility (DDF) was starting when the -START DDF or -STOP DDF command was issued.

System Action: The issued command is not executed.

DSNL024I **DDF IS ALREADY IN THE PROCESS**
OF STOPPING

Explanation: The distributed data facility (DDF) was stopping when the -STOP DDF or -START DDF command was issued.

System Action: The -START or -STOP DDF command is not executed.

DSNL025I **A DISTRIBUTED AGENT FOR**
luw-id=token **EXISTS AT THIS**
LOCATION BUT NOT AT SITE WITH
LOCATION *location* **AND LU** *luname*

Explanation: The DDF error monitor has detected that a distributed agent exists at this location but not at the named partner location.

Where

luw-id=token

The logical unit of work ID of the thread followed by an '=' sign and a token which may be used in place of 'luw-id' in any DB2 command that accepts 'luw-id' as input.

location

The location name of the partner site where a thread with the same 'luw-id' does not exist.

luname

The 8-character LUNAME of the partner location.

Operator Response: Determine if the inconsistency is due to network conditions or a DB2 error. If a DB2 error is suspected, acquire documentation to diagnose the problem.

1. Console dump of DB2 address spaces (*ssnmDBM1*, *ssnmMSTR*, *ssnmDIST*), VTAM, and user's address space at the requesting site.
2. Console dump of DB2 address spaces (*ssnmDBM1*, *ssnmMSTR*, *ssnmDIST*), and VTAM at the server site.
3. SYSLOG from requesting and server sites.
4. LOGREC from requesting and server sites.

If an indefinite inconsistency is suspected, use the CANCEL DDF THREAD command to terminate the thread. If CANCEL DDF THREAD fails to terminate the agent, use VTAM commands to terminate the thread conversations.

Problem Determination: Use the DB2 DISPLAY THREAD command with DETAIL option at each DB2 subsystem to display information about the agent and its conversations. Use VTAM commands to display additional information about the conversations being used by the thread and also about network conditions.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

DSNL026I **LUW-ID** *luw-id=token* **APPEARS TO BE**
SUSPENDED PARTNER LOCATION
location **PARTNER LU** *luname*

Explanation: The DDF error monitor has detected that a distributed agent with the specified 'luw-id' at this location and at the named partner 'location' may be suspended indefinitely.

Where

luw-id=token

The logical unit of work ID of the thread followed by an '=' sign and a token which may be used in place of 'luw-id' in any DB2 command that accepts 'luw-id' as input.

location

The location name of the partner site where a thread with the same 'luw-id' exists.

luname

The 8-character LUNAME of the partner location.

Operator Response: Determine if the inconsistency is

due to network conditions or a DB2 error. If a DB2 error is suspected, acquire documentation to diagnose the problem.

1. Console dump of DB2 address spaces (*ssnmDBM1*, *ssnmMSTR*, *ssnmDIST*), VTAM, and hung user's address space at the requesting site.
2. Console dump of DB2 address spaces (*ssnmDBM1*, *ssnmMSTR*, *ssnmDIST*), and VTAM as the server site.
3. SYSLOG from requesting and server sites.
4. LOGREC from requesting and server sites.

If an indefinite inconsistency is suspected, use the CANCEL DDF THREAD command to terminate the thread. If CANCEL DDF THREAD fails to terminate the agent, use VTAM commands to terminate the thread conversations.

Problem Determination: Use the DB2 DISPLAY THREAD command with DETAIL option at each DB2 subsystem to display information about the agent and its conversations. Use VTAM commands to display additional information about the conversations being used by the thread and also about network conditions.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

DSNL027I *dis-agent-type* **DISTRIBUTED AGENT WITH LUW-ID** *luw-id=token*
THREAD-INFO *thread-info* **RECEIVED ABEND=abnd REASON=reason**

Explanation: A distributed agent has abended at this location. This message will be followed by zero or more occurrences of DSNL028I, each of which describes a remote location where the distributed agent also exists and where diagnostic information might also need to be collected. This message is informational and with the DSNL028I message(s) identifies the remote locations where diagnostic information may have to be collected.

Where

dis-agent-type

'REQUESTING' if the thread that abended is an allied thread that has distributed activity and SERVER if the thread that abended is a database access thread.

luw-id=token

The logical-unit-of-work ID of the thread followed by an '=' sign and a 5 digit token value which may be used in any DB2 command that accepts luw-id as input.

thread-info

Thread-info contains additional identifiers that define more specific information regarding the identity of the thread.

In many distributed configurations, the primary authorization-ID used with DB2 is not necessarily the user-ID of the end user.

The following identifiers, separated by a colon(:), are provided:

- The primary authorization-ID associated with the thread.
- Work station name of the end user's work station. An asterisk (*) indicates that it is not relevant to the thread or was not provided by the client.
- End user's user-ID. An asterisk (*) indicates that it is not relevant to the thread or was not provided by the client.
- Application name of the end user's application. An asterisk (*) indicates that it is not relevant to the thread or was not provided by the client.

abnd The abend code or zeros if the abend code is indeterminate.

reason The DB2 reason code or zeros if the reason code is indeterminate.

Problem Determination: Gather appropriate diagnostic information (refer to the System Programmer Response section of the abend reason code specified in this message if applicable). Refer to DSNL028I message(s) for the names of the other location(s).

DSNL028I *luw-id=token* **ACCESSING DATA** *preposition* **LOCATION** *location nettype netvalue*

Explanation: This message follows DSNL027I and identifies a remote location where work might have been occurring for the distributed thread. This message is informational and with the DSNL027I message identifies a remote location where diagnostic information might have to be collected.

luw-id=token

The logical unit-of-work ID of the thread followed by an '=' sign and a token which may be used in place of 'luw-id' in any DB2 command that accepts 'luw-id' as input.

preposition

'FOR' if the thread is a database access thread and 'AT' if the thread is an allied thread that has distributed activity.

location

The LOCATION name of the remote site.

nettype

Identifies the type of network used to access the remote site. There are two possible values:

LU -- indicates that VTAM is used to connect to the remote site.

IPADDR --

indicates that TCP/IP is used to connect to the remote site.

netvalue

The network address of the remote location. *netvalue* can be blank.

- If *nettype* is LU, *netvalue* specifies the VTAM LU name of the remote location.
- If *nettype* is IPADDR, *netvalue* specifies the dotted decimal IP address of the remote location.

Problem Determination: See message DSNL027I.

DSNL029I DDF IS NOT INITIALIZED

Explanation: A -START DDF or -STOP DDF command was issued before DDF was initialized during DB2 startup processing.

Operator Response: Wait for the DSN9022I 'START DB2' NORMAL COMPLETION message and re-issue the command.

DSNL030I csect-name DDF PROCESSING FAILURE FOR LUWID=*luwid* AUTHID=*authid* REASON=*reason*

Explanation: A requesting conversation was terminated because of DDF processing failure. The requesting agent is identified by the 'luwid' and 'authid' values, if they are available. If the authorization ID is not available, the value '-UNKNOWN' will be displayed. If the 'luwid' is not available, the string 'netid.luname.000000000000' will be displayed, describing the LU that made the request.

The reason code in this message describes the nature of the DDF processing failure.

System Action: The system will eventually abend the database access agent.

Operator Response: Notify the system programmer for analysis.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Inspect the reason code and determine if the system is operating as expected. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSNL031I csect-name DRDA EXCEPTION CONDITION IN RESPONSE FROM SERVER LOCATION=*location* FOR THREAD WITH LUWID=*luwid* REASON=*reason* code ERROR ID=*module_name* and *source id* CORRELATION ID=*correlation-id* CONNECTION ID=*connection-id* IFCID=*ifcid* SEE TRACE RECORD WITH IFCID SEQUENCE NUMBER=*seq-no*

Explanation: A DRDA exception condition was detected in response data returned from the application server (AS) with location name *location*.

A DRDA exception condition, detected at the application requester, is one of the following:

- An error reply message and severity code received from the server.
- A parsing error detected while processing a reply message or reply data object
- A DRDA protocol violation, (for example, an object returned that is not valid for this command).

The variables have the following meanings:

luwid The logical unit of work (LUW) ID that identifies the thread and is also included in the trace record.

reason The DB2 reason code for this specific error.

error id The module name concatenated with a 4-byte source id that uniquely determines the source within the module where the exception is encountered.

correlation-id The correlation identifier of the thread that detected the DRDA exception condition. Correlation-IDs beginning with '0nn', where nn is a number from 01 to 28, identify system agents.

connection-id The connection name of the thread that detected the DRDA exception condition.

ifcid The IFCID number of the trace record that was written.

seq-no The IFCID sequence number associated with the trace record. The trace record contains information that can be used to determine what caused the DRDA exception condition, and is written to statistics class 4. Statistics class 4 is directed to SMF by default during DB2 installation, and must be directed to a permanent destination (SMF or GTF) for the trace record to be accessible. The message and the trace record are only written the first time an error is detected. This avoids flooding

the console and the trace. The sequence number is printed in hexadecimal.

If the sequence number is zero this has been caused by one of two conditions:

- statistics class 4 was not directed to a permanent destination
- statistics class 4 was directed to the resident trace table as its permanent destination.

If this message first occurred because statistics class 4 was not directed to a permanent destination, then the same message recurs later (along with trace record) when the statistics class is directed to the resident table as its permanent destination instead of SMF or GTF.

System Action: An alert was generated. Additionally, the system wrote a trace record with IFCID=*ifcid* to statistics class 4 that can be used to diagnose the problem.

Problem Determination: Determine the destination of statistics class 4 and locate and print the trace record with SEQUENCE NUMBER=*seq-no*. The reason code is described in Part 4, "Section 4. DB2 Codes," on page 773. The description of the reason code can be used in conjunction with the publication Distributed Relational Database Architecture Reference to determine the type of DRDA exception that has been detected. Use the procedures described in Part 4 of *DB2 Diagnosis Guide and Reference* to determine the problem and which system is responsible.

DSNL032I *csect-name* DRDA EXCEPTION
CONDITION IN REQUEST FROM
REQUESTER LOCATION=*location* FOR
THREAD WITH LUWID=*luwid*
REASON=*reason code* ERROR
ID=*module_name and source id*
IFCID=*ifcid* SEE TRACE RECORD WITH
IFCID SEQUENCE NUMBER=*seq-no*

Explanation: A DRDA exception condition was detected while processing a command or command data received from the application requester (AR) with location name *location*. A DRDA exception condition, detected at the application server (AS), is a parsing error detected while processing a command or a command data object.

location

This field contains one of the following:

- The requester's relational database name (location name)
- The requester's VTAM LU name (<lname>)
- The requester's dotted decimal IP address (nnn.nnn.nnn.nnn)

luwid The logical unit of work (LUW) ID that identifies the thread and is also included in the trace

record, or 'NETID.LUNAME.000000000000' if the error detected involves an invalid FMH5.

reason The DB2 reason code for this specific error.

error id

The module name concatenated with a 4-byte source id that uniquely determines the source within the module where the exception was encountered.

ifcid

The IFCID sequence number associated with the trace record. The trace record contains information that can be used to determine what caused the DRDA exception condition, and is written to statistics class 4. Statistics class 4 is directed to SMF by default during DB2 installation, and must be directed to a permanent destination (SMF or GTF) for the trace record to be accessible. The message and the trace record are only written the first time an error is detected. This avoids flooding the console and the trace. The sequence number is printed in hexadecimal.

If the sequence number is zero this has been caused by one of two conditions:

- statistics class 4 was not directed to a permanent destination
- statistics class 4 was directed to the resident trace table as its permanent destination.

If this message first occurred because statistics class 4 was not directed to a permanent destination, then the same message recurs later (along with trace record) when the statistics class is directed to the resident table as its permanent destination instead of SMF or GTF.

System Action: An alert was generated and the system wrote a trace record with IFCID=*ifcid* to statistics class 4 that can be used to diagnose the problem.

Operator Response: Notify the system programmer for analysis.

System Programmer Response: Determine the destination of statistics class 4 and locate and print the trace record with SEQUENCE NUMBER=*seq-no*. The reason code is described in Part 4, "Section 4. DB2 Codes," on page 773. The description of the reason code can be used in conjunction with the publication Distributed Relational Database Architecture Reference to determine the type of DRDA exception that has been detected. Use the procedures described in *DB2 Diagnosis Guide and Reference* to determine the problem and which system is responsible.

DSNL033I *csect-name* **DDF TERMINATION SCHEDULED DUE TO DETECTION OF ABEND** *abend* **REASON** *reason*

Explanation: A severe error was detected during DDF processing. DDF processing can no longer continue so DDF termination has been scheduled. 'Csect-name' is the DB2 module that detected the condition and requested DDF termination.

The abend and reason may also contain additional information about the cause.

abend The abend code or zeros if no abend is associated with the termination of DDF.

If the abend was a DB2 04E abend, the reason code will contain additional information about the abend.

reason The DB2 reason code or zeros if no DB2 reason code is associated with the termination of DDF.

If no abend is associated with the problem, the reason code describes the cause for the termination.

System Action: Termination of the distributed data facility (DDF) is initiated.

Operator Response: Notify the system programmer for analysis.

System Programmer Response: Determine the cause of the failure. Correct the condition and restart DDF using the -START DDF command.

Problem Determination: If an abend is associated with the failure, a dump may have been provided. LOGREC will also contain information about the abend.

DSNL034E **DDF CANNOT BE STARTED BECAUSE OF BSDS INCONSISTENCIES,** **ORIGINAL LUNAME=*luname1*, BSDS LUNAME=*luname2*, ORIGINAL LOCATION=*location1*, BSDS LOCATION=*location2***

Explanation: The LUNAME or the LOCATION name stored in the bootstrap data set (BSDS) was changed since the distributed data facility (DDF) was last started, but DDF still has resynchronization responsibility with one or more partner logical units using the old LUNAME and LOCATION name. Both the original and current BSDS values of LUNAME and LOCATION name are displayed.

luname1
The LUNAME required for resynchronization

luname2
The LUNAME currently stored in the BSDS

location1
The LOCATION name required for resynchronization

location2
The LOCATION name currently stored in the BSDS

System Action: DDF cannot be started until the inconsistencies are corrected.

Operator Response: Inform the database administrator.

Database Administrator Action: You have the following options, depending on whether there is a requirement to change the LUNAME or LOCATION name in the BSDS:

- If the names were changed in error, use the change log inventory (DSNJU003) utility to change the LUNAME and/or LOCATION name back to the correct value. Then START DDF.
- If the name must be changed, you must first remove all of the resynchronization responsibility that DB2 had using the old names. You can purge this information, allow automatic resynchronization to take place, or use a combination of both.

You can purge resynchronization information by using the RESET INDOUBT command with the FORCE option. You can purge all information regardless of partner name (LOCATION (*)), or you can selectively purge by specifying a location name. DDF does not have to be started to use this command. You can use the DISPLAY THREAD command to generate a report of indoubt threads. This report indicates all resynchronization responsibility known by DB2.

If you do not purge the resynchronization information, or only selectively purge, and you want automatic resynchronization to occur before changing the names, you must first use the change log inventory (DSNJU003) utility to change the LUNAME and/or LOCATION name back to the correct value. Then START DDF. At this point, automatic resynchronization begins. You can monitor the progress by periodically using the DISPLAY THREAD command for TYPE (INDOUBT) threads. Resynchronization does not complete until all needed communications paths are available and all needed partner logical units are available. If you cannot wait for availability, use the RESET INDOUBT command with the FORCE option to purge information associated with unavailable partners.

DSNL035I **DDF CANNOT BE STOPPED BECAUSE AN INDOUBT DATA BASE ACCESS THREAD EXISTS**

Explanation: DDF is the connection manager for a database access thread (DBAT) that is indoubt. A STOP DDF MODE(QUIESCE) command is rejected until the indoubt logical unit of work is resolved.

System Action: DDF is not stopped.

Operator Response: Inform the database administrator.

Database Administrator Action: You have the following options:

- Wait for automatic resynchronization to be performed. When this occurs, either message DSNL407I or DSNL415I is displayed.
After the indoubt thread is resolved, reissue the STOP DDF command.
- Use the DISPLAY THREAD TYPE(INDOUBT) command to find the LOCATION that has coordinator responsibility for the indoubt LUW. Contact that location and determine whether the LUW committed or aborted. Then use the RECOVER INDOUBT command to cause the indoubt DBAT to be resolved with the same decision.
After the indoubt thread is resolved, reissue the STOP DDF command.
- Issue the STOP DDF MODE(FORCE) command. The indoubt thread remains indoubt and can be resolved by using automatic resynchronization after DDF is started again, or it can be resolved manually as described above.

DSNL036I **DDF THREAD** *logical-unit-of-work-id*
SPECIFIED IS INDOUBT

Explanation: A database access thread that is indoubt cannot be canceled by using the -CANCEL DDF THREAD command.

System Action: The specified thread is not canceled.

Operator Response: Use the -DISPLAY THREAD TYPE(*) command to display all distributed activity.

DSNL037I *csect-name* **RESET GENERICLU** *lu*
SUCCESSFUL

Explanation: The RESET GENERICLU command successfully purged the VTAM sysplex information from shared memory.

lu The value supplied on the RESET
 GENERICLU command

System Action: The VTAM information contained in the sysplex shared memory for the indicated LU is purged.

DSNL038E *csect-name* **RESET GENERICLU** *lu*
FAILED DUE TO VTAM RTNCD=xx and
FDB2=yy

Explanation: The VTAM CHANGE,OPTCD=(SYN,ENDAFFIN) macro returned an unexpected return code, which is described by the indicated VTAM RTNCD and FDB2 values.

lu The value supplied on the RESET
 GENERICLU command

xx The hexadecimal value of the VTAM RTNCD
 field

yy The hexadecimal value of the VTAM FDB2
 field

System Action: VTAM was not able to purge the sysplex shared memory information for the indicated LU.

System Programmer Response: Refer to *VTAM for MVS/ESA Programming* for the meaning of the VTAM RTNCD and FDB2 values.

DSNL039E *csect-name* **RESET GENERICLU** *lu*
FAILED DUE TO ACTIVE VTAM
SESSIONS

Explanation: The RESET GENERICLU command was not accepted because one or more active VTAM sessions exist to the indicated LU. All VTAM sessions must be terminated before the command is accepted.

lu The value supplied on the RESET
 GENERICLU command

System Action: The command is rejected.

System Programmer Response: Terminate the VTAM sessions to the remote LU and reissue the -RESET GENERICLU command.

DSNL040E *csect-name* **RESET GENERICLU** *lu*
FAILED DUE TO INDOUBT
RESOLUTION INFORMATION

Explanation: The RESET GENERICLU command was not accepted because information is currently being retained for resolution of indoubt threads for the indicated partner LU. The DISPLAY THREAD TYPE(INDOUBT) command can be used to view this information.

lu The value supplied on the RESET
 GENERICLU command

System Action: The command is rejected.

System Programmer Response: Make sure that all indoubt threads at the remote site are resolved before issuing the RESET GENERICLU command.

When DB2 performs automatic indoubt thread resolution, the information contained in the DISPLAY THREAD TYPE(INDOUBT) display is purged at the end of the resynchronization process.

If required, use the -RESET INDOUBT command to manually purge the indoubt resolution information.

DSNL041E *csect-name* DB2 GENERIC LU NAME REQUESTED, BUT REQUIRED VTAM LEVEL IS NOT INSTALLED

Explanation: The DB2 GENERIC LUNAME installation option was specified. This option requires VTAM Version 4 Release 2 or a later release.

System Action: The DB2 GENERIC LUNAME installation option is ignored.

System Programmer Response: If the DB2 GENERIC LUNAME is required, install VTAM Version 4 Release 2 or a later release.

DSNL042E *csect-name* DB2 SYSPLEX TP WAS INVOKED BY LU *lu*, BUT REQUIRED MVS LEVEL IS NOT INSTALLED

Explanation: A request for the DB2 sysplex transaction program (TP) was received by a DB2 server that is a member of a data sharing group. The DB2 sysplex TP is used by the requesting systems to determine which DB2 systems within the group are currently available for DDF conversations.

The DB2 sysplex TP uses Work Load Manager (WLM) functions in MVS Version 5 Release 2 or a later release to balance distributed workload among the DB2 systems in the group. Because the required MVS release is not installed or DB2 is not registered with WLM, the DB2 sysplex TP is not able to provide the requested information.

lu The name of the LU in the network that invoked the DB2 sysplex TP

System Action: The DB2 sysplex TP returns the NETID.LUNAME of the local DB2 system as the only available DB2 server in the group. The requester is not provided the names of other DB2 systems in the group, so all sessions from the requester are routed to the local DB2 server.

System Programmer Response: Install MVS Version 5 Release 2 or a later release if you want to have the DB2 sysplex TP return multiple NETID.LUNAME values to the requester or refer to the DSNL044I on why DB2 could not register with WLM.

DSNL043I *csect-name* RESET GENERICLU *luname* INVALID

Explanation: The luname value specified is invalid. The correct format is either a

- 1 to 8 character luname, or
- 1 to 8 character network ID, a period, and a 1 to 8 character luname.

System Action: The parameter is ignored. Processing continues with the next luname, if any.

User Response: Determine the correct luname and reissue the command.

DSNL044I *csect-name* MVS *macname* MACRO FAILED WITH RETCODE=*xx* AND RSNCODE=*yy*

Explanation: An MVS Workload Manager (WLM) macro returned an unexpected return code, which is described by the indicated RETCODE and RSNCODE values. DDF uses MVS Workload Manager macros to obtain data sharing sysplex routing information for incoming DDF work requests, and to establish an MVS enclave for the execution environment of the distributed thread.

macname

The name of the MVS macro that returned the unexpected return code. The possible values are:

- IWMSRSRG: Register with WLM for sysplex routing.
- IWMSRSRS: Request sysplex routing information.
- IWMSRDRS: Deregister with WLM for sysplex routing.
- IWMECREA: Create enclave.

The WLM sysplex routing service macros will be appended with the contents of the LOCATION parameter passed to it. The contents of the LOCATION parameter will either be the member's location name or one of the alias-names being defined to subset the data sharing group. If the member's location name is displayed, then this member will not participate in WLM workload balancing. If a subsetting alias-name is displayed, then subsetting of the data sharing group by that alias-name will be disabled. However, a connection to this member of the data sharing group will be accepted when using the alias-name instead of the member's location name.

xx The hexadecimal value of the MVS RETCODE field.

yy The hexadecimal value of the MVS RSNCODE field.

System Action: If a sysplex routing macro failed, then sysplex routing may not be performed in which case, all SQL statements received from the client will be processed by this DB2 subsystem. If an enclave macro failed, the distributed thread may not be able to execute in an MVS enclave, however the distributed thread will continue to execute as an MVS SRB.

System Programmer Response: Refer to *MVS/ESA Programming: Workload Management Services* for the meaning of the MVS RETCODE and RSNCODE values.

DSNL045I *csect-name* ICSF *macname* CALL
 FAILED WITH RETCODE=*return-code*
 AND RSNCODE=*reason-code*

Explanation: An Integrated Cryptographic Service Facility (ICSF) call returned an unexpected return code, which is described by the indicate RETCODE and RSNCODE values. DDF uses ICSF calls to create connection keys, to generate a shared private key, to encrypt data, and to decrypt data.

macname

The name of the ICSF call that returned the unexpected return code. The possible values are:

- CSNBRNG: Random Number Generate.
- CSNBCKM: Multiple Clear Key Import.
- CSNDPKB: Key Token Build.
- CSNDPKE: Key Encrypt.
- CSNBENC: Encipher data.
- CSNBDEC: Decipher data.

return-code

The hexadecimal value of the ICSF return_code field.

reason-code

The hexadecimal value of the ICSF reason_code field.

System Action: The encryption function cannot be processed.

System Programmer Response: System Programmer Response: If the encryption facility is not installed, then install it before requesting encryption. If the encryption facility is installed, then verify that it is working correctly. Refer to *z/OS Integrated Cryptographic Service Facility - Application Programmer's Guide - ICSF Return Codes and ICSF Reason Codes* for further information.

DSNL065I *csect-name* CURRENT DDF STATE
 DOES NOT PERMIT STOP DDF
 MODE(SUSPEND)

Explanation: The current DDF state does not allow suspend processing to be initiated. DDF must be started for normal processing in order for suspend processing to be initiated.

System Action: The command is not executed.

DSNL066I *csect-name* STOP DDF
 MODE(SUSPEND) COMPLETE

Explanation: DDF suspend processing has completed successfully. DDF has suspended all inbound activity.

System Action: Processing continues normally.

DSNL067I *csect-name* CURRENT DDF STATE
 DOES NOT PERMIT START DDF

Explanation: The current DDF state does not allow START DDF processing to be initiated.

System Action: The command is not executed.

DSNL068I *csect-name* START DDF (RESUME
 PROCESSING) COMPLETE

Explanation: DDF has resumed normal processing.

System Action: Processing continues normally.

DSNL069I *csect-name* DDF IS SUSPENDING

Explanation: DDF has initiated suspend processing.

System Action: Processing continues normally.

DSNL070I *csect-name* DDF IS RESUMING

Explanation: DDF has initiated resume processing.

System Action: Processing continues normally.

DSNL071I *csect-name* WAIT OR CANCEL
 REQUIRES KEYWORD SUSPEND

Explanation: The WAIT(*n*) or CANCEL(*n*) keywords require that MODE(SUSPEND) be specified. For information about the STOP DDF command, see *DB2 Command Reference*.

System Action: The command is not executed.

DSNL072I *csect-name* WAIT TIME EXPIRED, DDF
 RESUME PROCESSING INITIATED

Explanation: The DDF suspend process has not completed successfully in the period of time specified for the WAIT keyword, so DDF resume processing has been initiated. For information about the STOP DDF command, see *DB2 Command Reference*.

System Action: DDF resume processing has been initiated.

DSNL073I *csect-name* CANCEL TIME EXPIRED,
 CANCEL ACTIVE DBAT PROCESSING
 HAS BEEN INITIATED

Explanation: The DDF suspend process has not completed successfully in the period of time specified for the CANCEL keyword so DDF is cancelling all active data base access threads (DBATS). For information about the STOP DDF command, see *DB2 Command Reference*.

System Action: DDF is attempting to terminate all active database access threads.

DSNL080I *csect* **DISPLAY DDF REPORT FOLLOWS:**

Explanation: This message is issued as a result of the DISPLAY DDF command. This message is always generated as the title for the DISPLAY DDF command report output. It precedes the other messages generated by this command.

System Action: Processing continues normally.

DSNL081I **STATUS=***status*

Explanation: This message is issued as a result of the DISPLAY DDF command. This message displays the status of DDF where status is

STARTD

Started

STARTG

Starting

STOPDF

Stopped Force. Last stopped abnormally, such as by "Stop DDF Mode(Force)" command

STOPDQ

Stopped Quiesce. Last stopped normally, such as by the "Stop DDF Mode(Quiesce)" command or DDF has not yet been started

STOPGF

Stopping Force. Currently stopping abnormally, such as by the "Stop DDF Mode(Force)" command

SUSPND

Suspended. Currently suspended, such as by the "Stop DDF Mode(Suspend)" command

SUSPNG

Suspending. Currently suspending, such as by the "Stop DDF Mode(Suspend)" command

NOINIT Not initialized. DDF is not configured. A "DDF STARTUP OPTION" value of "NO" is specified in the DSNTIPR installation panel.

System Action: Processing continues normally.

DSNL082I **LOCATION LUNAME GENERICLU**

Explanation: This message is issued as a result of the DISPLAY DDF command. This message displays the column headings for the DSNL083I message that follows

System Action: Processing continues normally.

DSNL083I *location luname genericlu*

Explanation: This message is issued as a result of the DISPLAY DDF command. This message provides the column values for the headings described by the DSNL082I message.

location

The location name of DDF as defined by the "DB2 LOCATION NAME" value in the DSNTIPR installation panel. Also, it is the location value of the BSDS DDF record that is defined by the 'LOCATION' value in the DDF statement of the DSNJU003 Change Log Inventory utility. A value of 'NONE' indicates that a location name has not been configured.

This information also appears in message DSNL004I when DDF is started. See the DSNL004I message for additional information.

luname

The DDF LU name. You can determine the LU name from the 'DB2 NETWORK LUNAME' value in the DSNTIPR installation panel. You may also determine the LU NAME from the LU name value of the BSDS DDF record that is defined by the 'LUNAME' value in the DDF statement of the DSNJU003 Change Log Inventory utility. A value of '-NONE' indicates that an LU name has not been configured.

If an LU name has been configured, then the field will contain the fully qualified LU name that consists of a network ID, a period delimiter, and the LU name. The network ID is determined from VTAM once DDF is started. A network ID of '-NONE' indicates that DDF has not yet been started, or initialization with VTAM has failed.

This information also appears in message DSNL004I when DDF is started. See the DSNL004I message for additional information.

genericlu

The DDF generic LU name. The generic LU name is determined from the 'DB2 GENERIC LUNAME' value in the DSNTIPR installation panel, and the generic LU name value of the BSDS DDF record which is defined by the 'GENERIC' value in the DDF statement of the DSNJU003 Change Log Inventory utility. A value of '-NONE' indicates that a generic LU name has not been configured.

If a generic LU name has been configured, then the field will contain the fully qualified generic LU name which consists of a network ID, a period delimiter, and the generic LU name. The network ID is determined from VTAM once DDF is started. A network ID of '-NONE' indicates that DDF has not yet been started, or initialization with VTAM has failed.

This information also appears in message DSNL004I when DDF is started. See the DSNL004I message for additional information.

System Action: Processing continues normally.

DSNL084I IPADDR TCPPORT RESPORT

Explanation: This message is issued as a result of the DISPLAY DDF command. This message displays the column heading for the DSNL085I message that follows.

System Action: Processing continues normally.

DSNL085I *ip-address tcpport resport*

Explanation: This message is issued as a result of the DISPLAY DDF command. This message provides the column values for the headings described by the DSNL084I message.

ip-address

The IP address of DDF.

During DDF start processing, DDF issues a GetHostID (USS BPX1HST macro) socket call to determine its IP address if the listener ports are defined. A value of '-NONE' indicates that DDF is not configured to use TCP/IP network protocols (see tcpport), DDF has not yet been started, or TCP/IP initialization has failed.

tcpport

The SQL listener TCP/IP port number.

The SQL listener port is determined from the 'DRDA PORT' value in the DSNTIP5 installation panel, and the port value of the BSDS DDF record. The 'PORT' value in the DDF statement of the DSNJU003 Change Log Inventory utility defines the port value of the BSDS DDF record.

- A value of 0 indicates that an SQL listener port has not been specified, and DDF is not configured to use TCP/IP network protocols.
- A value of 'NONE' indicates that DB2 will not accept connections on this port. This may be due to specifying 0 for the DSN6SYSP MAXDBAT installation parameter defined in DSNZPARM. For more information, see the 'MAX REMOTE ACTIVE' specification in the DSNTIPE installation panel in the DB2 Installation Guide. The current 'MAX REMOTE ACTIVE' value can also be seen in the 'MDBAT' value of the DSNL090I message that is included in the 'DISPLAY DDF DETAIL' report.

This information also appears in message DSNL004I when DDF is started. See the DSNL004I message for additional information.

resport

The two phase commit resynchronization (resync) listener TCP/IP port number.

The resync listener port is determined from the 'RESYNC PORT' value in the DSNTIP5 installation panel, and the resynchronization

port value of the BSDS record. The 'RESPORT' value in the DDF statement of the DSNJU003 Change Log Inventory utility defines the resynchronization port value of the BSDS DDF record. A value of 0 indicates that a resynchronization listener port has not been specified, and DDF is not configured to use TCP/IP network protocols.

This information also appears in message DSNL004I when DDF is started. See the DSNL004I message for additional information.

System Action: Processing continues normally.

DSNL086I *domain-type DOMAIN=domain-name*

Explanation: This message is issued as a result of the DISPLAY DDF command. This message displays a TCP/IP domain name associated with DDF.

domain-type

The type of domain name that is displayed, which can be one of the following:

SQL The domain name is used to accept inbound SQL requests from remote partners. The *tcpport* value of message DSNL085I provides the port number that is used to accept inbound connections.

RESYNC

The domain name is used to accept inbound two-phase commit resynchronization requests from remote partners. The *resport* value of message DSNL085I provides the port number that is being used to accept inbound connections.

Normally, the SQL and RESYNC domain names will be the same. However, in data sharing environments, the SQL domain name will be different than the RESYNC domain name. See *DB2 Data Sharing: Planning and Administration* for more information.

domain-name

The domain name associated with the domain type. A value of "-NONE" indicates that the use of TCP/IP is not configured or that TCP/IP initialization has failed.

This information also appears in message DSNL519I and/or message DSNL004I when DDF is started. See the DSNL519I and DSNL004I messages for additional information.

System Action: Processing continues normally.

DSNL090I DT=*dt* CONDBAT=*condbat*
MDBAT=*mdbat*

Explanation: This message is issued as a result of the DISPLAY DDF DETAIL command. This message displays some of the system parameter information associated with DDF.

dt DDF thread value. It indicates the "DDF THREADS" value specified in the DSNTIPR installation panel.

- A - DDF is configured with DDF THREADS ACTIVE
- I - DDF is configured with DDF THREADS INACTIVE

condbat Maximum number of inbound connections as determined by the "MAX REMOTE CONNECTED" value in the DSNTIPE installation panel.

mdbat Maximum number of database access threads as determined by the "MAX REMOTE ACTIVE" value in the DSNTIPE installation panel. This effectively determines the maximum number of active *slots*. That is, the maximum number of concurrent active database access threads that could potentially be executing SQL.

System Action: Processing continues normally.

DSNL092I ADBAT=*adbat* QUEDBAT=*quedbat*
IN1DBAT=*in1dbat* CONQUED=*conqued*

Explanation: This message is issued as a result of the DISPLAY DDF DETAIL command.

adbat Current number of active database access threads. This value increases as new database access threads get created or become active. The value decreases as database access threads terminate or become inactive. When this value reaches or exceeds the *mdbat* value that is indicated in the DSNL090I message, then new or inactive (previously called type 1) database access threads (DBATs), or new or inactive (previously called type 2) connections must be queued.

quedbat This value reflects a cumulative counter that is always incremented when the *mdbat* has been reached. When this message is issued, the value for *quedbat* is equal to the cumulative number of database access threads that have been suspended because the *mdbat* value has been reached. See message DSNL090I for information about the *mdbat* and *adbat* values. Also note that the *quedbat* counter is only reset at restart for this DB2 subsystem.

in1dbat Current number of inactive DBATs (previously

called type 1 inactive threads). This value only applies if the *dt* value specified in the DSNL090I message indicates that DDF INACTIVE support is enabled. Any database access threads reflected here can also be observed in the DISPLAY THREAD TYPE(INACTIVE) command report.

conqued Current number of connection requests that have been queued and are waiting to be serviced. Only applies if the *dt* value that is specified in the DSNL090I message indicates that DDF INACTIVE support is enabled.

These connections can represent newly attached connections, or inactive connections for which a new request has arrived from the client (connections that were represented in the *inaconn* value of the DSNL093I message).

If the maximum number of database access threads has been reached (*adbat* value is equal to or greater than the DSNL090I *mdbat* value) and there are no disconnected database access threads to service the request (see DSNL093I *dscdbat* value), or if DDF is suspended or suspending (see DSNL081I *status* value), then these requests cannot yet be serviced.

If DDF is suspending or stopped suspended (see DSNL081I *status* value), then these conquered connections will not be processed until DDF is started (resumed). If the *adbat* value is equal to or greater than the DSNL090I *mdbat* value, then these conquered connections will not be processed until another active database access thread releases its slot by either terminating or by moving to the inactive state (see the *in1dbat* or DSNL093I *inaconn* value).

System Action: Processing continues normally.

DSNL093I DSCDBAT=*dscdbat* IN2CONS=*in2cons*

Explanation: This message is issued as a result of the DISPLAY DDF DETAIL command.

dscdbat Current number of disconnected database access threads. Only applies if the *dt* value specified in the DSNL090I message indicates that DDF INACTIVE support is enabled. This is effectively the number of DBAT pool threads. DBAT pool threads are the database access threads that are available to service queued connections requests (see DSNL092I *conqued* value). Database access threads reflected here will also be accounted for in the DSNL092I *adbat* value.

Over time, disconnected DBATs may hold allocation duration locks, such as locks related to DDL. These disconnected DBATs can be terminated by the STOP DDF MODE SUSPEND command, which allows their held allocation duration locks to be released. Stopping DDF with mode SUSPEND allows these disconnected DBATs to be terminated without affecting current or new connections, although activity on these current or new connections will not be processed until DDF is started (resumed). Disconnect DBATs can also be made to terminate when they have been unused for a certain length of time, thus releasing their allocated duration locks. This can be done by adjusting the DBAT pool thread timeout value as described by "POOL THREAD TIMEOUT" in the DSNTIP5 installation panel.

inaconn

Current number of inactive (previously called type 2) connections. This value only applies if the *dt* value specified in the DSNL090I message indicates that DDF INACTIVE support is enabled. This value represents connections with clients where the client last ended a unit of work (commit or rollback) and thus DB2 changes the state of the connection to inactive. That means that the DBAT is separated from the connection, and the connection becomes inactive while the DBAT is made available to service new client connections or to service new requests on existing client connections. This value is not included in the DSNL092I *in1dbat* value. When a new request arrives from the client system on the connection, the connection will then be moved to the DSNL092I *conqued* value. Any connections reflected here can also be observed in the DISPLAY THREAD TYPE(INACTIVE) command report.

System Action: Processing continues normally.

DSNL099I *csect* **DISPLAY DDF REPORT COMPLETE**

Explanation: This message indicates that the DISPLAY DDF report successfully completed.

System Action: Processing continues normally.

DSNL200I **DISPLAY LOCATION REPORT FOLLOWS-**

Explanation: This message is the title for the -DISPLAY LOCATION command report output. It precedes the other messages generated by this command. This message is followed by messages DSNL201I and DSNL202I. The final message for the report is the message DSNL205I.

System Action: The -DISPLAY LOCATION command continues normally.

DSNL201I **LOCATION PRDID LINKNAME REQUESTERS SERVERS CONVS**

Explanation: The column headings for the list of locations generated by the -DISPLAY LOCATION command are displayed. The definitions are listed below:

Heading	Description
LOCATION	The location name associated with the remote site
PRDID	Identifies the database product at the location
LINKNAME	The VTAM LU name associated with the remote location
REQUESTERS	The number of agents at this site that are requesting data from the remote location
SERVERS	The number of agents at this site that are acting as a server to the remote location
CONVS	The total number of conversations in use between this site and the remote location

See message DSNL202I for a more specific description of these items.

The message number and subsystem recognition character are not included in this message.

System Action: Processing continues normally.

DSNL202I **LOCATION PRDID LINKNAME REQUESTERS SERVERS CONVS**

Explanation: This message lists the status of communications between a remote location and this DB2 subsystem. Information about the status appears below:

Item	Description
LOCATION	A 16-byte name for the remote site.
PRDID	Identifies the database product at the location in the form nnnvrrm. <ul style="list-style-type: none"> • nnn - Identifies the database product. E.g., DSN=DB2. • vv - Product version. • rr - Product release. • m - Product modification level.

LINKNAME

The VTAM LU name or dotted decimal IP address associated with the remote location.

REQUESTERS

A count of the threads at this location that access data at the remote location. The count includes all the allied threads associated with the remote location, and any database access threads that are accessing data at the remote location.

SERVERS

A count of the database access threads at this location that access data for agents at the remote location.

CONVS

A count of the total number of conversations between the two systems. The count includes both allied and database threads.

The message number and subsystem recognition character are not included in this message.

System Action: Processing continues normally.

DSNL203I L203-SYSTASK SESSID A ST TIME

Explanation: This message forms the heading for the listing of DB2 system threads that communicate with other locations. It follows each occurrence of message DSNL202I if the DETAIL keyword of the DISPLAY LOCATION command is used. This message is followed by one or more occurrences of message DSNL204I, which describe the DB2 system threads communicating with the remote site and its conversation information. Items in this part of the heading are:

SYSTASK

Heading that describes the DB2 system thread

SESSID

Heading for the associated conversation identifiers

A Heading for the associated active indicators

ST Heading for the associated status indicators

TIME Heading for the associated timestamps

See message DSNL204I for descriptions of these items.

The message number and subsystem recognition character are not included in this message. However, L203 is included in the message text to identify the message.

System Action: Processing continues normally.

DSNL204I L204-SYSTASK SESSID ACTIVE STATUS TIME

Explanation: This message follows the DSNL203I message for a remote location when a detail display is specified on the DISPLAY LOCATION command. This message is displayed for each conversation owned by a DB2 system thread that communicates with the site. It lists detailed information about the conversations associated with the DB2 system thread.

systask

Describes the DB2 system threads as follows:

- SYSCON-x

Where x =

- O** The system thread that manages 'outbound' DB2 system conversations.
- I** The system thread that manages 'inbound' DB2 system conversations.

When DB2 is communicating with other DB2 locations using system-directed access, DB2 establishes 'system conversations' to the remote DB2 location. DB2 uses these conversations internally. The conversations created are one directional. That is, DB2 has a conversation that it uses to send information to the remote site, and another that it uses to receive information from the remote site. A DB2 system thread is created to manage 'outbound' (used for sending) conversations and another to manage 'inbound' (used for receiving) conversations.

- RESYNC

A conversation used to resynchronize a unit of work that encountered a previous thread or communication error. There can be one entry representing each thread needing resynchronization with the remote site.

sessid Two possible values can appear in this column:

1. For VTAM network connections, this column contains the VTAM-defined session instance identifier of the session on which the conversation is executing. If the session identifier is not applicable, this field contains zeros.

VTAM does not supply the entire session id to DB2. The first two digits of the session id are incorrect. Therefore, the session id, as presented in this message, is not acceptable in VTAM commands. Use the VTAM DISPLAY NET,ID=db2-luname,SCOPE=ACT command to obtain the full session ID. The DISPLAY NET command lists all sessions (SID) for the

DB2 logical unit. Scan the DISPLAY NET output for the complete SID.

- For TCP/IP network connections, this column contains a string of the form 'local:remote', where:

local -- specifies the local DB2 system's TCP/IP port number

remote --
specifies the remote partner's TCP/IP port number

active One of the following:

- V The conversation is active within VTAM or TCP/IP.
 - W The conversation is suspended in DB2 waiting for VTAM or TCP/IP notification that the function is complete.
- Blank, otherwise.

status Status of the conversation:

- A Conversation in allocation.
 - C Session limits are being negotiated with the partner (CNOS) prior to conversation allocation.
 - D Conversation in deallocation.
 - R Receiving.
 - S Sending.
- Blank otherwise.

time The timestamp (yyddhhmmssth) of the last message sent or received on the conversation.

The message number and subsystem recognition character are not included in this message. However, L204 is included in the message text to identify the message.

System Action: Command processing continues

DSNL205I DISPLAY LOCATION REPORT COMPLETE

Explanation: This message follows messages DSNL200I, DSNL201I, and DSNL202I and indicates that the -DISPLAY LOCATION report successfully completed.

The message number and subsystem recognition character are not included in this message.

System Action: Processing continues normally.

DSNL206I csect-name named-command COMMAND INVALID, DDF NOT STARTED

Explanation: The 'named-command' command was issued before the distributed data facility (DDF) was started. The 'named-command' command executes successfully only if the DDF is operating.

System Action: Processing continues normally.

DSNL207I DISPLAY LOCATION NO LOCATIONS FOUND

Explanation: The -DISPLAY LOCATION command was unable to find any locations associated with the specified list of locations. If all locations were specified, there is no distributed activity.

System Action: Processing completed normally.

User Response: If a location list was specified, reissue the -DISPLAY LOCATION command using the LOCATION(*) parameter to display information for all locations, if desired.

DSNL208I DISPLAY LOCATION TERMINATED WITH MAX LINES

Explanation: The message indicates the -DISPLAY LOCATION report was truncated. The report was generated in response to a command from an MVS console and more than 254 response messages were generated. Only 254 response messages are returned.

System Action: Command processing completes. The truncated report is written to the MVS console.

User Response: Reissue the -DISPLAY LOCATION request specifying a specific location or list of locations.

DSNL400E INDOUBT THREAD RESOLUTION WITH COORDINATOR location SHOWS HEURISTIC DAMAGE FOR luwid=token - REMOTE COMMIT VERSUS LOCAL ABORT. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=207 AND IFCID SEQUENCE NUMBER=seq-no1 AND IN TRACE RECORD WITH IFCID=203 AND IFCID SEQUENCE NUMBER=seq-no2

Explanation: DB2 has participant responsibility in the logical unit of work identified by 'luwid=token'. Resolution with the coordinator identified by 'location' shows heuristic damage occurred. The DB2 thread representing the logical unit of work was previously resolved using the RECOVER INDOUBT command. The action taken was to abort the thread. Subsequently, communication was reestablished with the coordinator and resolution shows that the coordinator committed the thread.

- The application was told that commit succeeded.

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- Any resources updated at the coordinator were committed.
- Updated resources at this DB2 were rolled back.

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token

The global logical unit of work id and the local token that identify the thread.

seq-no1

The IFCID sequence number associated with the 207 trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 207 was not active or it was active with a destination of the resident trace table only. IFCID 207 is a member of statistics class 4, which has a default destination of SMF. This trace record is written when the heuristic damage condition was detected and contains information about the damage condition.

seq-no2

The IFCID sequence number associated with the 203 trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 203 was not active or it was active with a destination of the resident trace table only. IFCID 203 is a member of statistics class 4, which has a default destination of SMF. This trace record was written when the heuristic decision to commit or abort was made and contains information about the decision, including the names of any downstream participants.

System Action: Alert A004 is generated. A trace record whose IFCID=207 is written. Indoubt resolution with the coordinator completes.

System Programmer Response: Determine the destination of statistics class 4 and locate and print the trace record with SEQUENCE NUMBER='seq-no1'. Call the database administrator.

Database Administrator Action: Correct the damage. This is not an easy task. Since the time of the heuristic action, the data that was aborted with the RECOVER INDOUBT command might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. Tools available are:

- The statistics trace class 4 contains an IFCID 207 trace record. This record contains the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message.

- The DSN1LOGP utility provides a summary report that identifies the table spaces modified by the logical unit of work and any downstream participant locations involved in the logical unit of work.
- DISPLAY THREAD TYPE(INDOUBT) displays the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message. This information continues to appear in the DISPLAY THREAD report until it is purged with the RESET INDOUBT command.

Contact your IBM Support Center for further assistance.

DSNL401E INDOUBT THREAD RESOLUTION WITH COORDINATOR *location* SHOWS HEURISTIC DAMAGE FOR *luwid=token* - REMOTE ABORT VERSUS LOCAL COMMIT. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=207 AND IFCID SEQUENCE NUMBER=*seq-no1* AND IN TRACE RECORD WITH IFCID=203 AND IFCID SEQUENCE NUMBER=*seq-no2*

Explanation: DB2 has participant responsibility in the logical unit of work identified by 'luwid=token'. Resolution with the coordinator identified by 'location' shows heuristic damage occurred. The DB2 thread representing the logical unit of work was previously resolved with the RECOVER INDOUBT command. The action taken was to commit the thread. Subsequently, communication was reestablished with the coordinator and resolution shows that the coordinator aborted the thread.

- The application was told that commit failed.
- Any resources updated at the coordinator were rolled back.
- Updated resources at this DB2 were committed.

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token

The global logical unit of work id and the local token that identify the thread.

seq-no1

The IFCID sequence number associated with the 207 trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 207 was not active or it was active with a destination of the resident trace table only. IFCID 207 is a member of statistics class 4, which has a default destination of SMF. This trace record is written

when the heuristic damage condition was detected and contains information about the damage condition.

seq-no2

The IFCID sequence number associated with the 203 trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 203 was not active or it was active with a destination of the resident trace table only. IFCID 203 is a member of statistics class 4, which has a default destination of SMF. This trace record was written when the heuristic decision to commit or abort was made and contains information about the decision, including the names of any downstream participants.

System Action: Alert A004 is generated. A trace record whose IFCID=207 is written. Indoubt resolution with the coordinator completes.

System Programmer Response: Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no1'. Call the database administrator.

Database Administrator Action: Correct the damage. This is not an easy task. Since the time of the heuristic action, the data that was committed with the RECOVER INDOUBT command might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. Tools available are:

- The statistics trace class 4 contains an IFCID 207 trace record. This record contains the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message.
- The DSN1LOGP utility provides a summary report that identifies the table spaces modified by the logical unit of work, and any downstream participant locations involved in the logical unit of work.
- DISPLAY THREAD TYPE(INDOUBT) displays the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message. This information continues to appear in the DISPLAY THREAD report until it is purged with the RESET INDOUBT command.

Contact your IBM Support Center for further assistance.

DSNL402I INDOUBT THREAD RESOLUTION WITH PARTICIPANT *location* SHOWS HEURISTIC DAMAGE FOR *luwid=token* - REMOTE COMMIT VERSUS LOCAL ABORT. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=207 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 has coordinator responsibility for the logical unit of work identified by 'luwid=token'. Resolution with a participant shows heuristic damage

occurred. The participant identified by 'location' manually resolved the indoubt thread identified by 'luwid=token'. The action taken was to commit the thread. This is inconsistent with the abort decision of the coordinator.

- The application was told that commit failed.
- Any resources updated at the participant were committed.
- Updated resources at this DB2 were rolled back.

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<lname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token

The global logical unit of work id and the local token that identify the thread.

seq-no

The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 207 was not active or it was active with a destination of the resident trace table only. IFCID 207 is a member of statistics class 4, which has a default destination of SMF.

System Action: Alert A004 is generated. A trace record whose IFCID=207 is written. Indoubt resolution with the participant completes.

System Programmer Response: Call the database administrator.

Database Administrator Action: Inform the database administrator at 'location' that heuristic damage occurred for the logical unit of work with LUWID='luwid'. DB2 was the coordinator for the logical unit of work and made the decision to abort the database updates made by 'luwid'. At 'location' a heuristic decision was made to COMMIT the updates made by 'luwid'.

Information about the heuristic damage continues to appear in the DISPLAY THREAD TYPE(INDOUBT) report until it is purged with the RESET INDOUBT command.

DSNL403I INDOUBT THREAD RESOLUTION WITH PARTICIPANT *location* SHOWS HEURISTIC DAMAGE FOR *luwid=token* - REMOTE ABORT VERSUS LOCAL COMMIT. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=207 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 has coordinator responsibility for the logical unit of work identified by 'luwid=token'. Resolution with a participant shows heuristic damage occurred. The participant identified by 'location'

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manually resolved the indoubt thread identified by 'luwid=token'. The action taken was to abort the thread. This is inconsistent with the commit decision of the coordinator.

- The application was told that commit succeeded.
- Any resources updated at the participant were rolled back.
- Updated resources at this DB2 were committed.

location

The relational database name (location-name), SNA LU name (<luname>), or dotted decimal IP address of the participant.

luwid=token

The global logical unit of work id and the local token that identify the thread.

seq-no

The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 207 was not active or it was active with a destination of the resident trace table only. IFCID 207 is a member of statistics class 4, which has a default destination of SMF.

System Action: Alert A004 is generated. A trace record with IFCID 207 is written. Indoubt resolution with the participant completes.

System Programmer Response: Call the database administrator.

Database Administrator Action: Inform the database administrator at 'location' that heuristic damage occurred for the logical unit of work with LUWID='luwid'. DB2 was the coordinator for the logical unit of work and made the decision to COMMIT the database updates made by 'luwid'. At 'location' a heuristic decision was made to back out (ABORT) the updates made by 'luwid'.

Information about the heuristic damage continues to appear in the DISPLAY THREAD TYPE(INDOUBT) report until it is purged with the RESET INDOUBT command.

DSNL404E **PROTOCOL ERROR DURING INDOUBT THREAD RESOLUTION WITH COORDINATOR** *location*
LUWID=luwid=token **INFORMATION RECORDED IN TRACE RECORD WITH IFCID=206 AND IFCID SEQUENCE NUMBER=seq-no**

Explanation: DB2 has participant responsibility for the logical unit of work identified by 'luwid=token'. The DB2 thread associated with the logical unit of work is indoubt. A protocol error occurred during indoubt resolution with the coordinator identified by 'location'.

location

Either the relational database name

(location-name) or the logical unit name (<luname>) of the coordinator.

luwid=token

The global logical unit of work id and the local token that identify the thread.

seq-no

The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 206 was not active or it was active with a destination of the resident trace table only. IFCID 206 is a member of statistics class 4, which has a default destination of SMF.

System Action: The indoubt thread remains indoubt. Alert A003 is generated. A trace record whose IFCID=206 is written.

System Programmer Response: This is an APARable error, probably at the coordinator, but possibly at the DB2 participant. The DB2 documentation required is contained in the statistics class 4 trace record that was written. Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no'.

Call the database administrator.

Database Administrator Action: DB2 does not attempt to automatically resolve the indoubt thread. The indoubt thread must be manually resolved. The commit or abort decision made at the coordinator must be determined so that the same decision can be made at this participant DB2.

Contact the database administrator at the coordinator location to determine whether the thread with LUWID=luwid committed or aborted.

If the coordinator system is another DB2, the following steps can be taken at the DB2 coordinator to determine the commit or abort decision.

1. If the coordinator DB2 system is running and a DB2 conditional restart was not performed since the error was detected at this (the participant) location, ask the database administrator at the DB2 coordinator location to issue one of the following DISPLAY THREAD TYPE(INDOUBT) commands:
 - A -DISPLAY THREAD TYPE(INDOUBT), using the LOCATION keyword and specifying the location name of the local DB2.
 - A -DISPLAY THREAD TYPE(INDOUBT) LUWID(luwid)

If a thread with LUWID=luwid appears in the display, then the display also includes the commit or abort decision. If no thread with LUWID=luwid appears in the display, the thread was aborted.

2. If the DB2 coordinator is down, or if a conditional restart was performed there, ask the database administrator at the DB2 coordinator to run DSN1LOGP, specifying SUMMARY(ONLY) FILTER

LUWID(luwid). The output from DSN1LOGP includes the commit or abort decision.

Use the RECOVER INDOUBT command at this (the participant) location to resolve the indoubt thread.

DSNL405I **THREAD *luwid=token* PLACED IN INDOUBT STATE BECAUSE OF COMMUNICATION FAILURE WITH COORDINATOR *location*. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=209 AND IFCID SEQUENCE NUMBER=*seq-no***

Explanation: During execution of the two phase commit protocol with the coordinator identified by 'location', communication failed. Phase 1 of the protocol completed and the thread is prepared for either commit or abort.

The thread is placed in the indoubt state and appears in a DISPLAY THREAD TYPE (INDOUBT) report. Periodic attempts are made to reestablish communication with the coordinator for automatic indoubt resolution. If successful, message DSNL407 or DSNL415 is written.

luwid=token

The global logical unit of work id and the local token that identify the thread.

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 209 was not active or it was active with a destination of the resident trace table only. IFCID 209 is a member of statistics class 4, which has a default destination of SMF.

System Action: Alert A006 is generated. A trace record whose IFCID=209 is written.

Operator Response: If message DSNL407 or DSNL415 for the LUWID specified in the DSNL405 message does not appear in a reasonable amount of time, call the system programmer.

System Programmer Response: Determine the cause of the communication failure and have the problem fixed. DB2 periodically attempts to reestablish communication. If the problem cannot be fixed in a reasonable amount of time, call the database administrator. Manual resolution of the indoubt thread might be necessary to release locked resources.

Database Administrator Action: Take the following

actions to resolve this thread using manual means (that is, take heuristic action) if it is necessary to release locks held by this thread.

- Determine the proper commit or abort decision by contacting the database administrator at the coordinator 'location' shown in this message in order to determine whether the thread with LUWID=luwid committed or aborted.

If the coordinator system is another DB2, the following steps can be taken at the DB2 coordinator to determine the commit or abort decision.

1. If the coordinator DB2 system is running and a DB2 conditional restart was not performed since the error was detected at this (the participant) location, ask the database administrator at the DB2 coordinator location to issue one of the following DISPLAY THREAD TYPE(INDOUBT) commands:
 - A -DISPLAY THREAD TYPE(INDOUBT), using the LOCATION keyword and specifying the location name of the local DB2.
 - A -DISPLAY THREAD TYPE(INDOUBT) LUWID(luwid)

If a thread with LUWID=luwid appears in the display, then the display also includes the commit or abort decision. If no thread with LUWID=luwid appears in the display, then the thread was aborted.

2. If the DB2 coordinator is down or if a conditional restart was performed there, ask the database administrator at the DB2 coordinator to run DSN1LOGP, specifying SUMMARY(ONLY) FILTER LUWID(luwid). The output from DSN1LOGP includes the commit or abort decision.

- Use the RECOVER INDOUBT command to commit or abort the thread.

DSNL406I **THREAD *luwid=token* AT PARTICIPANT *location* MAY BE INDOUBT BECAUSE OF A COMMUNICATION FAILURE. DB2 COMMITTED THE THREAD. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=209 AND IFCID SEQUENCE NUMBER=*seq-no***

Explanation: During execution of the two phase commit protocol with the participant identified by 'location', communications failed. Phase 1 of the protocol completed with the participant, which is prepared to either commit or abort. The decision to commit the thread was made, but cannot be communicated to the participant at this time. The participant is indoubt.

DB2 becomes responsible for indoubt resolution with the participant. This responsibility appears in a DISPLAY THREAD TYPE (INDOUBT) report. Periodic attempts are made to reestablish communication with

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the participant for automatic indoubt resolution. If successful, message DSNL423 is written.

luwid=token

The global logical unit of work id and the local token that identify the thread.

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 209 was not active or it was active with a destination of the resident trace table only. IFCID 209 is a member of statistics class 4, which has a default destination of SMF.

System Action: Alert A006 is generated. A trace record whose IFCID=209 is written.

Operator Response: If message DSNL423 for the LUWID specified in message DSNL406 does not appear in a reasonable amount of time, call the system programmer.

System Programmer Response: Determine the cause of the communication failure and have the problem fixed. DB2 periodically attempts to reestablish communication. If the problem cannot be fixed in a reasonable amount of time, call the database administrator. The participant might need to manually resolve the indoubt state to release locked resources.

Database Administrator Action: If the unit of work with LUWID=luwid is indoubt at 'location', inform the database administrator there that the logical unit of work with LUWID=luwid was committed to assist in manual resolution of the indoubt thread at 'location'.

DSNL407I AUTOMATIC RESOLUTION OF *luwid=token* WITH COORDINATOR *location* RESULTED IN COMMIT

Explanation: The identified indoubt logical unit of work was automatically resolved by communication with the coordinator location. After automatic resolution, this message is issued if message DSNL405 was previously issued to report the thread as indoubt. This message is not issued if message DSNL405 occurs in one restart of DDF or DB2, and automatic resolution occurs in a different restart of DDF or DB2.

luwid=token

The global logical unit of work id and the local token that identify the thread

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

System Action: Processing continues normally.

DSNL408I INDOUBT THREAD RESOLUTION WITH COORDINATOR *location* SHOWS HEURISTIC DAMAGE AT PARTICIPANT *location* FOR *luwid=token* - COORDINATOR COMMIT VERSUS PARTICIPANT ABORT. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=207 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 has participant responsibility in the logical unit of work identified by 'luwid=token' for the coordinator at COORDINATOR 'location' and coordination responsibility in the same logical unit of work for the participant at PARTICIPANT 'location'. Heuristic damage occurred.

- The application was told that commit succeeded.
- Any resources updated at the coordinator and at this DB2 were committed.
- Updated resources at the participant were rolled back.

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token

The global logical unit of work id and the local token that identify the thread.

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 207 was not active or it was active with a destination of the resident trace table only. IFCID 207 is a member of statistics class 4, which has a default destination of SMF.

System Action: Alert A004 is generated. A trace record whose IFCID=207 is written. Indoubt resolution with the coordinator completes.

System Programmer Response: Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no'. Call the database administrator.

Database Administrator Action: Inform the database

administrator at the coordinator 'location' and at the participant 'location' of the problem.

Correcting the damage at the participant is not an easy task. Since the time of the heuristic action, the data that was aborted using manual means might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. The following information that is available at DB2 might be helpful in correcting the problem:

- The statistics trace class 4 contains an IFCID 207 trace record. This record contains the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message.
- The DSN1LOGP utility provides a summary report that identifies the table spaces modified by the logical unit of work at the local DB2 as well as any downstream participant locations involved in the logical unit of work. This information, while not directly related to the damage at the participant, might be useful in determining the scope of the problem.
- DISPLAY THREAD TYPE(INDOUBT) displays the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message. This information continues to appear in the DISPLAY THREAD report until it is purged with the RESET INDOUBT command.

Contact your IBM Support Center for further assistance.

DSNL409I INDOUBT THREAD RESOLUTION WITH COORDINATOR *location* SHOWS HEURISTIC DAMAGE AT PARTICIPANT *location* FOR *luwid=token* - COORDINATOR ABORT VERSUS PARTICIPANT COMMIT. INFORMATION RECORDED IN TRACE RECORD WITH IFCID 207 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 has participant responsibility in the logical unit of work identified by 'luwid=token' for the coordinator at COORDINATOR 'location' and coordination responsibility in the same logical unit of work for the participant at PARTICIPANT 'location'. Heuristic damage occurred.

- The application was told that commit failed.
- Any resources updated at the coordinator and at this DB2 were rolled back.
- Updated resources at the participant were committed.

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token

The global logical unit of work id and the local token that identify the thread.

seq-no

The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 207 was not active or it was active with a destination of the resident trace table only. IFCID 207 is a member of statistics class 4, which has a default destination of SMF.

System Action: Alert A004 is generated. A trace record whose IFCID=207 is written. Indoubt resolution with the coordinator completes.

System Programmer Response: Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no'. Call the database administrator.

Database Administrator Action: Inform the database administrator at the coordinator 'location' and at the participant 'location' of the problem.

Correcting the damage at the participant is not an easy task. Since the time of the heuristic action, the data that was committed using manual means might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. This information is available at DB2 and might be helpful in correcting the problem.

- The statistics trace class 4 contains an IFCID 207 trace record. This record contains the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message.
- The DSN1LOGP utility provides a summary report that identifies the table spaces modified by the logical unit of work at the local DB2 and any downstream participant locations involved in the logical unit of work. This information, while not directly related to the damage at the participant, might be useful in determining the scope of the problem.
- DISPLAY THREAD TYPE(INDOUBT) displays the RBA of the first DB2 log record written for the logical unit of work whose LUWID is included in this message. This information continues to appear in the DISPLAY THREAD report until it is purged with the RESET INDOUBT command.

Contact your IBM support center for further assistance.

DSNL410I WARM START CONNECTION BY PARTNER *location* REJECTED. PARTNER CHANGED AT LEAST 1 OF - OUR LOG NAME *oldourname(newourname)*, THEIR LOG NAME *oldtheirname(newtheirname)*, PA_SUPPORT *oldpa(newpa)*, FLAG_BYTE_SENT *oldfb(newfb)*, CCLUNAME_SENT *oldcccls(newcccls)*, AND INDOUBT THREADS REQUIRE RESOLUTION. SEE IFCID=205 TRACE RECORD WITH IFCID SEQUENCE NUMBER=*seq-no*.

Explanation: An attempt to make a warm start connection with a partner was rejected because the partner specified a different set of sync point parameters than the ones that were in use when communications were lost. DB2 has knowledge of indoubt threads that involve the partner as either the coordinator or a participant. This error might be a recoverable error if the partner can restart with the original sync point parameters. If this is not possible, then the partner must perform a cold start connection with DB2.

location

The 'location' with which the connection failed: either the relational database name (location-name) or the logical unit name (<luname>) of the partner.

oldourname

The log name for this DB2 subsystem. This value is null if the partner did not initiate the log name exchange.

newourname

The log name for this DB2 subsystem, as remembered by our partner and sent to us in the attempted warm start connection. This value is null if the partner did not initiate the log name exchange.

oldtheirname

The log name used by the partner during the last connection, as remembered by DB2.

newtheirname

The log name used by the partner in the attempted warm start connection.

oldpa

The sync point protocol used during the last connection, as remembered by the DB2 (PA - Presumed Abort, PN - Presumed Nothing).

newpa

The sync point protocol used during the last connection, as remembered by the partner (PA - Presumed Abort, PN - Presumed Nothing).

oldfb

The use of the PS header byte 2 during the last connection, as remembered by DB2 (F - used as flag byte, N - not used as flag byte).

newfb

The use of the PS header byte 2 during the

last connection, as remembered by the partner (F - used as flag byte, N - not used as flag byte).

oldcccls

Whether the luname of the conversation correlator was exchanged as part of the sync point protocol during the last connection, as remembered by DB2. (E - was exchanged, N - was not exchanged).

newcccls

Whether the luname of the conversation correlator was exchanged as part of the sync point protocol during the last connection, as remembered by the partner (E - was exchanged, N - was not exchanged).

seq-no

The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 0205 was not active or it was active with a destination of the resident trace table only. IFCID 0205 is a member of statistics class 4, which has a default destination of SMF.

System Action: The connection with the partner is rejected. Alert A002 is generated. DB2 retains indoubt knowledge.

System Programmer Response: Call the database administrator.

Database Administrator Action: Contact the database administrator at the partner 'location' and determine if it is possible for the partner to perform a warm start with same sync point parameters as ours ('oldourname', 'oldtheirname', 'oldpa', 'oldfb', 'oldcccls'). If this is possible, the next attempt to connect will succeed.

If this cannot be done, then there are two other possible solutions:

- Have the partner 'location' perform a cold start connection with this DB2 subsystem.
- Use the RESET INDOUBT command with the FORCE option in conjunction with the LOCATION parameter to cause the next connection with the partner to be a cold start connection.

DSNL411E COLD START CONNECTION BY COORDINATOR *location* ACCEPTED. INDOUBT THREADS NEED MANUAL RESOLUTION. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=204 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 has participant responsibility for indoubt threads. The coordinator informed DB2 that it performed a cold start operation and lost all knowledge of indoubt threads. The indoubt threads at this DB2 must be manually resolved with the RECOVER INDOUBT command.

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 204 was not active or it was active with a destination of the resident trace table only. IFCID 204 is a member of statistics class 4, which has a default destination of SMF.

System Action: The connection with the partner is accepted. Alert A001 is generated. A trace record whose IFCID=204 is written.

System Programmer Response: Call the database administrator.

Database Administrator Action: DB2 is a participant with one or more indoubt threads where the coordinator is 'location'. The DBMS at 'location' performed a cold start. The DB2 participant assumes that the coordinator recovery log was lost or damaged and indoubt thread resolution cannot be achieved. There is probably inconsistent data at the coordinator. A list of indoubt threads involving the coordinator 'location' can be displayed using the DISPLAY THREAD command for indoubt type threads by including the LOCATION('location') parameter in the command.

The heuristic decision (that is, to commit or abort the logical unit of work) should be coordinated with any other participants. The existence of other participants might not be easy to determine. The information might be available in the coordinators recovery log even though the coordinator performed a cold start. If the coordinator is a DB2, then it might be possible to execute the DSN1LOGP utility to produce a summary report. If this is possible, the following information might be produced:

- The LUWID of the thread.
- The NID used by IMS or CICS to identify the thread.
- The name of all participants.
- The name of an upstream coordinator if the coordinator is also a participant. This could happen when an application requester accesses a DB2 AS using application-directed access, which in turn accesses another DB2 server with system-directed access. (The local DB2 might be the third system in this scenario.)

At this DB2 participant, all indoubt threads coordinated by the cold starting location must be resolved with the RECOVER INDOUBT command. Locked data remains unavailable until resolution. Threads that were already

resolved with this command are discarded. Threads not yet resolved are discarded after resolution with the command.

The commit or abort decision provided using the RECOVER INDOUBT command for a logical unit of work are propagated to all downstream participants, if any.

DSNL412I **PROTOCOL ERROR DETECTED IN SYNCPOINT REQUEST/RESPONSE FROM COORDINATOR** *location*
LUWID=*luwid=token*. **INFORMATION RECORDED IN TRACE RECORD WITH IFCID=208 AND IFCID SEQUENCE NUMBER=***seq-no*

Explanation: DB2 is a participant in the logical unit of work identified by 'luwid=token'. A protocol error occurred during the SNA sync point exchange with the coordinator identified by 'location'. The protocol error fits into one of the following categories:

- An unknown SNA PS header was received.
- An SNA PS header was received in the wrong sequence.
- An invalid LU6.2 verb sequence was used to deliver the SNA PS header.
- A DEALLOCATE TYPE(ABEND_SVC) was received from the coordinator, indicating that the coordinator detected a protocol violation in the PS headers transmitted by DB2.

location

Either the relational database name (location-name) or the logical unit name (<luname>) of the coordinator.

luwid=token

The global logical unit of work id and the local token that identify the thread.

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 208 was not active or it was active with a destination of the resident trace table only. IFCID 208 is a member of statistics class 4, which has a default destination of SMF.

If the protocol error was detected before the commit decision, the unit of work at the DB2 system might be indoubt. DB2 does not automatically resolve such an indoubt thread.

If the protocol error was detected after the commit decision, the unit of work either completed commit or abort processing.

System Action: Alert A005 is generated. A trace record whose IFCID=208 is written.

DSNL413I

System Programmer Response: This is an APARable error, probably at the coordinator, but possibly at DB2. The DB2 documentation required is contained in the statistics class 4 trace record. Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no'.

The database administrator might need to manually resolve the indoubt thread.

Database Administrator Action: Determine if the 'luwid' is indoubt by using the DISPLAY THREAD command for type indoubt threads and including the LUWID('token') parameter in the command. If the thread is indoubt, it must be manually resolved using the RECOVER INDOUBT command. The commit or abort decision made at the coordinator must be determined so that the same decision can be made at DB2.

Contact the database administrator at the coordinator location to determine whether the thread with LUWID=luwid committed or aborted.

If the coordinator system is another DB2, then the following steps can be taken at the DB2 coordinator to determine the commit or abort decision.

1. If the coordinator DB2 system is running and a DB2 conditional restart was not performed since the error was detected at this (the participant) location, ask the database administrator at the DB2 coordinator location to issue one of the following DISPLAY THREAD TYPE(INDOUBT) commands:
 - A -DISPLAY THREAD TYPE(INDOUBT), using the LOCATION keyword and specifying the location name of the local DB2.
 - A -DISPLAY THREAD TYPE(INDOUBT) LUWID(luwid)

If a thread with LUWID=luwid appears in the display, then the display also includes the commit or abort decision. If no thread with LUWID=luwid appears in the display, then the thread was aborted.

2. If the DB2 coordinator is down or if a conditional restart was performed there, ask the database administrator at the DB2 coordinator to run DSN1LOGP, specifying SUMMARY(ONLY) FILTER LUWID(luwid). The output from DSN1LOGP includes the commit or abort decision.

DSNL413I **PROTOCOL ERROR DETECTED IN SYNCPOINT REQUEST/RESPONSE FROM PARTICIPANT** *location*
LUWID=luwid=token. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=208 AND IFCID SEQUENCE NUMBER=seq-no

Explanation: DB2 is the coordinator of the logical unit of work identified by 'luwid=token'. A protocol error occurred during the SNA sync point exchange with the participant identified by 'location'. The protocol error fits

into one of the following categories:

- An unknown SNA PS header was received.
- An SNA PS header was received in the wrong sequence.
- An invalid LU6.2 verb sequence was used to deliver the SNA PS header.
- A DEALLOCATE TYPE(ABEND_SVC) was received from the participant, indicating that the participant detected a protocol violation in the PS headers transmitted by DB2.

location

The relational database name (location-name) of the participant.

luwid=token

The global logical unit of work id and the local token that identify the thread.

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 208 was not active or it was active with a destination of the resident trace table only. IFCID 208 is a member of statistics class 4, which has a default destination of SMF.

If the protocol error is detected before the commit decision, the unit of work is backed out.

If the protocol error is detected after the commit decision, the outcome of the unit of work is unchanged. In this case, the remote participant might be indoubt. DB2 does not automatically resolve the indoubt thread with the partner 'location' after a protocol error is detected.

System Action: Alert A005 is generated. A trace record whose IFCID=208 is written.

System Programmer Response: This is an APARable error, probably at the participant, but possibly at the DB2 coordinator. The DB2 documentation required is contained in the statistics class 4 trace record. Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no'.

Call the database administrator. The participant might need to manually resolve the indoubt thread.

Database Administrator Action: The DB2 coordinator does not know the status of the thread at the participant. The DB2 coordinator assumes that it is indoubt and maintains knowledge of the indoubt participant until it is purged with the RESET INDOUBT command. If the thread is indoubt at the participant, it must be resolved using manual (heuristic) means. The status of the thread at the local DB2 (the coordinator) can be determined with the DISPLAY THREAD command for type indoubt threads by including the LUWID('token') parameter in the command.

If the 'participant' location is also a DB2, the RECOVER INDOUBT command can be used at the participant to resolve the indoubt thread.

DSNL414E **PROTOCOL ERROR DURING INDOUBT THREAD RESOLUTION WITH PARTICIPANT** *location*
LUWID=luwid=token **INFORMATION RECORDED IN TRACE RECORD WITH IFCID=206 AND IFCID SEQUENCE NUMBER=seq-no**

Explanation: DB2 has coordinator responsibility for the logical unit of work identified by 'luwid=token'. The DB2 thread associated with the logical unit of work is either committed or aborted. A protocol error occurred during indoubt resolution with the participant identified by 'location'.

The thread at the participant remains indoubt. DB2 rejects further attempts to automatically resolve the indoubt thread.

location

The relational database name (location-name) of the participant.

luwid=token

The global logical unit of work id and the local token that identify the thread.

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 206 was not active or it was active with a destination of the resident trace table only. IFCID 206 is a member of statistics class 4, which has a default destination of SMF.

System Action: Alert A003 is generated. A trace record whose IFCID=206 is written.

System Programmer Response: This is an APARable error, probably at the participant, but possibly at the DB2 coordinator. The DB2 documentation required is contained in the statistics class 4 trace record. Determine the destination of statistics class 4. Locate and print the trace record with SEQUENCE NUMBER='seq-no'.

Call the database administrator. The participant might need to manually resolve the indoubt thread.

Database Administrator Action: The DB2 coordinator maintains knowledge of the indoubt participant until it is purged with the RESET INDOUBT command. If the thread is indoubt at the participant, it must be manually (heuristically) resolved. The status of the thread at the local DB2 (the coordinator) can be determined with the DISPLAY THREAD command for type indoubt threads by including the LUWID('token') parameter in the command.

If the participant is another DB2, the RECOVER

INDOUBT command can be used to resolve the indoubt thread.

DSNL415I **AUTOMATIC RESOLUTION OF** *luwid=token* **WITH COORDINATOR**
location **RESULTED IN ABORT**

Explanation: The identified indoubt logical unit of work was automatically resolved by communication with the coordinator location. After automatic resolution, this message is issued if message DSNL405 was previously issued to report the thread as indoubt. This message is not issued if message DSNL405 occurs in one restart of DDF or DB2, and automatic resolution occurs in a different restart of DDF or DB2.

luwid=token

The global logical unit of work id and the local token that identify the thread

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<lname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

System Action: Processing continues normally.

DSNL416I **COLD START CONNECTION**
REJECTED BY PARTNER *location*

Explanation: DB2 attempted to make a cold-start connection with a partner location. The partner rejected this attempted connection. DB2 never rejects cold-start connections by partners.

location

Either the relational database name (location-name) or the logical unit name (<lname>) of the partner.

System Action: The connection was not made.

System Programmer Response: Call the database administrator.

Database Administrator Action: DB2 is not able to connect the partner 'location' until the partner 'location' allows a cold-start connection with DB2. Contact the database administrator at the partner 'location'.

Contact your IBM Support Center for further assistance.

DSNL417E *csect-name* **COLD START DETECTED AT COORDINATOR LOCATION** *location* **FOR INDOUBT THREAD WITH** *luwid=token*. **MANUAL RESOLUTION IS REQUIRED. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=204 and IFC SEQUENCE NUMBER=seq-no.**

Explanation: DB2 has resync responsibility for the indoubt thread identified. The partner location informed DB2 that it had performed a cold start operation and lost all knowledge of this indoubt thread. This indoubt thread must be manually resolved with the RECOVER INDOUBT command, followed by the RESET INDOUBT command.

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token

The logical unit of work id and the local token that identify the thread.

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 204 was not active or it was active with a destination of the resident trace table only. IFCID 204 is a member of statistics class 4, which has a default destination of SMF and contains information about a partner's cold start.

System Action: Alert A001 is generated. A trace record whose IFCID=204 is written.

System Programmer Response: Call the database administrator.

Database Administrator Action: DB2 is a participant with one or more indoubt threads where the coordinator is 'location'. The DBMS at 'location' performed a cold start. The DB2 participant assumes that the coordinator recovery log was lost or damaged and indoubt thread resolution cannot be achieved. There may be inconsistent data at the coordinator. A list of indoubt threads involving the coordinator 'location' can be displayed using the DISPLAY THREAD command for indoubt type threads by including the LOCATION('location') parameter in the command.

The heuristic decision (that is, to commit or abort the logical unit of work) should be coordinated with any other participants. The existence of other participants might not be easy to determine. The information might be available in the coordinators recovery log even though the coordinator performed a cold start. If the coordinator is a DB2, then it might be possible to

execute the DSN1LOGP utility to produce a summary report. If this is possible, the following information might be produced:

- The LUWID of the thread.
- The NID used by IMS or CICS to identify the thread.
- The name of all participants.
- The name of an upstream coordinator if the coordinator is also a participant. This could happen when an application requester accesses a DB2 AS using application-directed access, which in turn accesses another DB2 server with system-directed access. (The local DB2 might be the third system in this scenario.)

At this DB2 participant, all indoubt threads coordinated by the cold starting location must be resolved with the RECOVER INDOUBT command. Locked data remains unavailable until resolution. Threads that were already resolved with this command are discarded. Threads not yet resolved are discarded after resolution with the command.

The commit or abort decision provided using the RECOVER INDOUBT command for a logical unit of work are propagated to all downstream participants, if any.

DSNL418E *csect-name* **COLD START DETECTED AT PARTICIPANT LOCATION** *location* **FOR INDOUBT THREAD WITH** *luwid=token*. **POSSIBLE DAMAGE. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=204 and IFC SEQUENCE NUMBER=seq-no.**

Explanation: DB2 has coordinator responsibility for the indoubt thread identified. The partner location informed DB2 that it had performed a cold start operation and lost all knowledge of this indoubt thread. There might be damage at the participant.

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid=token

The global logical unit of work id and the local token that identify the thread.

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 204 was not active or it was active with a destination of the resident trace table only. IFCID 204 is a

member of statistics class 4, which has a default destination of SMF.

System Action: Alert A001 is generated. A trace record whose IFCID=204 is written.

System Programmer Response: Call the database administrator.

Database Administrator Action: DB2 is the coordinator with indoubt thread resolution responsibility for one or more indoubt logical units of work at 'location'. The DBMS at 'location' performed a cold start. DB2 assumes that the participant recovery log was lost or damaged and indoubt thread resolution cannot be achieved. There is probably inconsistent data at the participant. Minimally, the participant might not completely reflect the final outcome of the threads that were indoubt at the time the failure occurred. A list of indoubt threads involving the partner 'location' can be displayed using the DISPLAY THREAD command for type indoubt threads by including the LOCATION('location) parameter in the command.

Information about the indoubt participant continues to appear in the DISPLAY THREAD TYPE(INDOUBT) report until it is purged with the RESET INDOUBT command.

DSNL419I PARTNER *location* HAS RESOLVED WARM START STATUS AND CONNECTION IS ACCEPTED

Explanation: A successful warm start connection was made with a partner. A previous attempt to make a warm start connection with the partner was rejected with a DSNL410I message because the partner specified an incorrect log name.

location

Either the relational database name (location-name) or the logical unit name (<luname>) of the partner

System Action: The connection was successful. Normal processing continues.

DSNL420I COLD START CONNECTION BY PARTICIPANT *location* ACCEPTED. POSSIBLE DAMAGE. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=204 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 has coordinator responsibility for indoubt threads at a participant and just connected with the participant, which lost all knowledge of indoubt threads because of a previous cold start. There might be damage at the participant.

location

The field contains one of the following:

- The relational database name (location name)

- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 204 was not active or it was active with a destination of the resident trace table only. IFCID 204 is a member of statistics class 4, which has a default destination of SMF.

System Action: The connection with the partner is accepted. Alert A001 is generated. A trace record whose IFCID=204 is written.

System Programmer Response: Call the database administrator.

Database Administrator Action: DB2 is the coordinator with indoubt thread resolution responsibility for one or more indoubt logical units of work at 'location'. The DBMS at 'location' performed a cold start. DB2 assumes that the participant recovery log was lost or damaged and indoubt thread resolution cannot be achieved. There is probably inconsistent data at the participant. Minimally, the participant might not completely reflect the final outcome of the threads that were indoubt at the time the failure occurred. A list of indoubt threads involving the partner 'location' can be displayed using the DISPLAY THREAD command for type indoubt threads by including the LOCATION('location) parameter in the command.

Information about the indoubt participant continues to appear in the DISPLAY THREAD TYPE(INDOUBT) report until it is purged with the RESET INDOUBT command.

DSNL421I SNA XLN PROTOCOL VIOLATION BY PARTNER *location*. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=0236 AND IFCID SEQUENCE NUMBER=*seq-no*

Explanation: DB2 detected a protocol violation in the SNA Exchange Log Names (XLN) exchange with the partner at the specified location.

location

Either the relational database name (location-name) or the logical unit name (<luname>) of the partner that sent the invalid XLN message.

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, then IFCID 0236 was not active or it was active with a destination of the resident trace table only. IFCID 0236 is a member of statistics class 4, which has a default destination of SMF.

System Action: The attempt to connect with the remote site fails. DB2 writes a trace record with IFCID 0236.

Operator Response: Call the system programmer.

System Programmer Response: Contact the system programmer for the remote site. The invalid XLN message is recorded in the IFCID 0236 trace record. The system logic error that causes the invalid XLN message must be corrected at the remote site.

DSNL422I WARM START CONNECTION BY PARTNER *location* REJECTED BECAUSE THE PARTNER REMEMBERS OUR LOG NAME INCORRECTLY. OUR LOG NAME IS *name1* AND THE PARTNER REMEMBERS IT AS *name2*

Explanation: An attempt to make a warm start connection with a partner was rejected because the partner specified our log name as *name2*. Our log name is *name1*, which is the LUNAME of the local DB2. This error might be a recoverable error if the partner can restart with our log name as *name1*. If this is not possible, then the partner must perform a cold start connection with DB2.

location

The 'location' with which the connection failed: either the relational database name (location-name) or the logical unit name (<luname>) of the partner.

name1 Our log name, as remembered by us.

name2 Our log name, as remembered by our partner and sent to us in the attempted warm start connection.

System Action: The connection with the partner is rejected. DB2 retains indoubt knowledge.

System Programmer Response: Call the database administrator.

Database Administrator Action: Contact the database administrator at the partner 'location' and determine if it is possible for the partner to perform a warm start with our log name specified as the LUNAME of this DB2. If this is possible, the next attempt to connect will succeed.

If this cannot be done, then there are two other possible solutions.

- Have the partner 'location' perform a cold start connection with this DB2 subsystem.
- Use the RESET INDOUBT command with the FORCE option in conjunction with the LOCATION parameter to cause the next connection with the partner to be a cold start connection.

DSNL423I AUTOMATIC RESOLUTION OF *luwid=token* WITH PARTICIPANT *location* RESULTED IN COMMIT

Explanation: The identified indoubt logical unit of work was automatically resolved through communication with the participant location. After automatic resolution, this message is issued if message DSNL406 was previously issued reporting the thread as indoubt. This message is not issued if message DSNL406 occurs in one restart of DDF or DB2, and automatic resolution occurs in a different restart of DDF or DB2.

luwid=token

The global logical unit of work id and the local token that identify the thread.

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

System Action: Processing continues normally.

DSNL424I AUTOMATIC RESOLUTION OF *luwid=token* WITH PARTICIPANT *location* RESULTED IN ABORT

Explanation: The identified indoubt logical unit of work was automatically resolved by communication with the participant location. After automatic resolution, this message is issued if message DSNL425 was previously issued reporting the thread as being indoubt. This message is not issued if message DSNL425 occurs in one restart of DDF or DB2, and automatic resolution occurs in a different restart of DDF or DB2.

luwid=token

The global logical unit of work id and the local token that identify the thread

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

System Action: Processing continues normally.

DSNL425I **THREAD *luwid=token* AT PARTICIPANT *location* MAY BE INDOUBT BECAUSE OF A COMMUNICATION FAILURE. DB2 ABORTED THE THREAD. INFORMATION RECORDED IN TRACE RECORD WITH IFCID=209 AND IFCID SEQUENCE NUMBER=*seq-no***

Explanation: During execution of the two phase commit protocol with the participant identified by 'location', communications failed. Phase 1 of the protocol completed with the participant and it is prepared for either commit or abort. The decision to abort the thread was made, but cannot be communicated to the participant at this time. The participant is indoubt.

DB2 becomes responsible for indoubt resolution with the participant. This responsibility appears in a DISPLAY THREAD TYPE (INDOUBT) report. Periodic attempts are made to reestablish communication with the participant for automatic indoubt resolution. If successful, message DSNL424 is written.

luwid=token

The global logical unit of work id and the local token that identify the thread.

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<luname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

seq-no The IFCID sequence number associated with the trace record. The sequence number is printed in hexadecimal format. If the sequence number is zero, IFCID 209 was not active or it was active with a destination of the resident trace table only. IFCID 209 is a member of statistics class 4, which has a default destination of SMF.

System Action: Alert A006 is generated. A trace record whose IFCID=209 is written.

Operator Response: If message DSNL424 for the LUWID specified in message DSNL406 does not appear in a reasonable amount of time, call the system programmer.

System Programmer Response: Determine the cause of the communication failure and have the problem fixed. DB2 periodically attempts to reestablish communication. If the problem cannot be fixed in a reasonable amount of time, call the database administrator. The participant might need to resolve the indoubt state manually in order to release locked resources.

Database Administrator Action: If the unit of work with LUWID=*luwid* is indoubt at '*location*', inform the

database administrator there that the logical unit of work with LUWID=*luwid* was aborted to assist in manual resolution of the indoubt thread at '*location*'.

DSNL429I **INCONSISTENT DDF LOG DATA, THE FIRST CONNECTION WITH EACH REMOTE LOCATION WILL BE A COLD START CONNECTION**

Explanation: DB2 detected an inconsistency in the DB2 log during restart operations. Since the log is inconsistent and cannot be trusted, DB2 performs a cold start connection with each partner LU the next time a connection with that LU is attempted. If DB2 has indoubt resolution responsibility either as a coordinator or as a participant, then this information is lost as indicated by messages DSNL438 and/or DSNL439, which might follow this message. This means that:

- All information that DB2 maintained about having coordinator responsibility for remote participants was purged. These remote participants need manual resolution for any indoubt threads for which DB2 was the coordinator. A DSNL439I message is displayed for each indoubt remote participant.
- All information that DB2 maintained about having participant responsibility for remote coordinators was purged. A DSNL438I message is displayed for each database access thread that has a remote coordinator. If a database access thread remains indoubt at the end of restart, then the thread must be manually resolved. A -DISPLAY THREAD (*) TYPE(INDOUBT) LOCATION (*) command provides a report that lists the indoubt threads that need manual resolution.

System Action: Processing continues normally.

System Programmer Response: Call the database administrator.

Database Administrator Action: See the DSNL438I and DSNL439I messages to determine what action to take.

DSNL432I **DDF IS COORDINATOR FOR *nnnn* THREADS WITH *mmmm* INDOUBT REMOTE PARTNERS**

Explanation: This message is issued when DDF is started or stopped, if DDF determines that this DB2 has coordinator responsibility for one or more indoubt threads with one or more partners. This is a summary status message.

nnnn The number of indoubt threads for which DB2 is the coordinator

mmmm The number of remote partners where the threads are indoubt

System Action: Processing continues normally.

Operator Response: If the message was issued as a

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result of DDF starting, no action is necessary. If the message was issued as a result of DDF stopping, contact the database administrator.

Database Administrator Action: If the message was issued as a result of stopping DDF, then DB2 maintained all information necessary to perform automatic resynchronization with partner locations and resolve all indoubt units of work. Issue the START DDF command to initiate this process.

If the message was issued as a result of starting DDF, then DDF started automatic resynchronization.

DSNL433I DDF IS PARTICIPANT FOR *nnnn* INDOUBT THREADS WITH *mmmm* REMOTE PARTNERS

Explanation: This message is issued when DDF is started or stopped, if DDF determines that this DB2 has participant responsibility for one or more indoubt threads with one or more partners. This is a summary status message.

nnnn The number of indoubt threads for which DB2 is the participant

mmmm The number of remote partners that have coordinator responsibility

System Action: Processing continues normally.

Operator Response: If the message was issued as a result of DDF starting, no action is necessary. If the message was issued as a result of DDF stopping, contact the database administrator.

Database Administrator Action: If the message was issued as a result of stopping DDF, then DB2 maintained all information necessary to perform automatic resynchronization with partner locations and resolve all indoubt units of work. Issue the START DDF command to initiate this process.

If you do not want to perform automatic resynchronization, you can still resolve the indoubt units of work for which DB2 is a participant and which hold database resources locked. Use the DISPLAY THREAD command for type indoubt threads to produce a display that lists these threads. Then use the RECOVER INDOUBT command to either commit or abort these units of work.

To avoid data inconsistency, coordinate this manual resolution with the database administrators at the locations that have coordinator responsibility for each indoubt unit of work. If any of the indoubt units of work at DB2 also have coordinator responsibility for participant locations, then you should notify the database administrators at the participant locations of the commit or abort decision so they can make the same decision.

DSNL434E DDF NOT STARTED - INCORRECT VTAM RELEASE LEVEL

Explanation: The local VTAM release level is older than the minimum release level required by DB2. When DB2 issues the VTAM OPEN macro, the VTAM release level is returned to DB2. DB2 examines the VTAM release level to determine whether the local VTAM system provides the function required by DB2.

System Action: The attempt to START DDF fails.

Operator Response: Call the system programmer.

System Programmer Response: Install a release of VTAM that is compatible with the DB2 system. The DB2 Program Directory identifies the required VTAM release level.

DSNL438I RESYNC STATUS PURGED FOR COORDINATOR *location*. LUWID=*luwid*, URID=*urid*, STATUS=*s* INFORMATION RECORDED IN TRACE RECORD WITH IFCID=235 and IFCID SEQUENCE NUMBER=*seq-no*

Explanation: The information related to resynchronization with the remote coordinator location for the logical unit of work identified by 'luwid', which is displayed in this message, is being purged by DB2. Automatic indoubt resolution responsibility for this distributed logical unit of work can no longer be performed.

This situation can arise in one of two ways;

- A DB2 conditional restart (other than a DB2 cold start; that is, a DB2 conditional restart with STARTRBA=ENDRBA) is being performed.
- An inconsistency in the DB2 log was detected during DB2 restart processing (indicated by a DSNL429I message).

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<lname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid The global logical unit of work id that identifies the logical unit of work.

urid The unit of recovery identifier. This is the RBA on the DB2 recovery log of the log record that marks the beginning of the logical unit of work. This is the earliest RBA required to process the logical unit of work during restart.

s Restart status of the logical unit of work. When DB2 came down, the logical unit of work was in one of these states:

A INABORT: The logical unit of work

was in the “must-complete” phase of abort, but abort has not yet completed.

- C** INCOMMIT: The logical unit of work was in the “must-complete” phase of commit, but commit has not yet completed.
- D** INDOUBT: The logical unit of work completed the first phase of commit, but DB2 has not yet received the commit or abort decision from the coordinator.
- F** INFLIGHT: The logical unit of work has not yet completed the first phase of commit and should be backed out.
- U** UNKNOWN: The status of the logical unit of work is not known to DB2 because of conditional restart.

seq-no The IFCID sequence number associated with the trace record. The trace record is written to statistics class 4, which is started to SMF as a default during DB2 installation. Statistics class 4 must be started to a permanent destination (SMF or GTF) for the trace record to be accessible. The sequence number is printed in hexadecimal.

System Action: Processing continues normally.

System Programmer Response: Call the database administrator.

Database Administrator Action: The resynchronization information that was purged by DB2 is recorded in this message. To determine the proper commit or abort decision made by the coordinator at 'location', use the status code as follows:

- A** The correct decision is to abort the logical unit of work.
- C** The correct decision is to commit the logical unit of work.
- D** Contact the database administrator at 'location' to determine the correct decision.
- F** The correct decision is to abort the logical unit of work.
- U** Contact the database administrator at 'location' to determine the correct decision.

the logical unit of work identified by 'luwid', which is displayed in this message. Automatic indoubt resolution responsibility for this distributed logical unit of work can no longer be performed.

This situation can arise in one of two ways:

- A DB2 conditional restart (other than a DB2 cold start; that is, a DB2 conditional restart with STARTRBA=ENDRBA) is being performed.
- An inconsistency in the DB2 log was detected during DB2 restart processing (indicated by a DSNL429I message).

location

The field contains one of the following:

- The relational database name (location name)
- The VTAM LU name (<lname>)
- The dotted decimal IP address (nnn.nnn.nnn.nnn).

luwid The global logical unit of work id that identifies the logical unit of work.

urid The unit of recovery identifier. This is the RBA on the DB2 recovery log of the log record that marks the beginning of the logical unit of work. This is the earliest RBA required to process the logical unit of work during restart.

s Restart status of the logical unit of work. When DB2 came down, the logical unit of work was in one of these states:

- A** INABORT: The logical unit of work was in the “must-complete” phase of abort, but abort has not yet completed.
- C** INCOMMIT: The logical unit of work was in the “must-complete” phase of commit, but commit has not yet completed.
- D** INDOUBT: The logical unit of work completed the first phase of commit, but DB2 has not yet received the commit or abort decision from the coordinator.
- F** INFLIGHT: The logical unit of work has not yet completed the first phase of commit and should be backed out.
- U** UNKNOWN: The status of the logical unit of work is not known to DB2 because of conditional restart.

seq-no The IFCID sequence number associated with the trace record. The trace record is written to statistics class 4, which is started to SMF as a default during DB2 installation. Statistics class 4 must be started to a permanent destination

DSNL439I RESYNC STATUS PURGED FOR PARTICIPANT location. LUWID=luwid, URID=urid, STATUS=s INFORMATION RECORDED IN TRACE RECORD WITH IFCID=235 and IFCID SEQUENCE NUMBER=seq-no

Explanation: DB2 is purging the information related to resynchronization with the remote participant location for

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(SMF or GTF) for the trace record to be accessible. The sequence number is printed in hexadecimal.

System Action: Processing continues normally.

System Programmer Response: Call the database administrator.

Database Administrator Action: The resynchronization information that was purged by DB2 is recorded in this message. When communicating the proper commit or abort decision to the database administrator at 'location', use the status code as follows:

- A** Abort the logical unit of work.
- C** Commit the logical unit of work.
- D** See the DSNL438I message produced for the same 'luwid' and 'urid' to determine the coordinator 'location'. Contact the database administrator at 'location' to determine the correct decision.
- F** Abort the logical unit of work.
- U** If there is a DSNL438I message for the same 'luwid' and 'urid', proceed as described above under 'D'. Otherwise, there might be information available on the DB2 log that a DSN1LOGP summary report can provide. If this is not successful, contact the IBM Support Center.

DSNL440I *csect-name* RESET INDOUBT COMMAND SPECIFICATION IN ERROR

Explanation: A RESET INDOUBT command was issued, but the specification of keywords or keyword parameter values was in error.

System Action: No indoubt information was purged. System processing continues normally.

User Response: One of the following errors was made in the RESET INDOUBT command specification:

- RESET INDOUBT was issued without any other keywords specified. At least one of the following keywords must also be specified: LUNAME, IPADDR, LOCATION, or LUWID.
- RESET INDOUBT was issued with both the LUWID and LOCATION keywords specified, but a list of LOCATION keyword parameter values was specified. When both the LUWID and LOCATION keywords are specified only one LOCATION keyword parameter value is allowed.
- RESET INDOUBT was issued with at least one LOCATION keyword parameter value that began with a '<', but did not end with a '>', or the length of the bracketed value was not 1 to 8 characters. When the LOCATION keyword parameter value is specified in the <luname> format, the luname value must be bracketed with '<' and '>' and be 1 to 8 characters long.

- RESET INDOUBT was issued with an invalid IPADDR keyword parameter value. Verify that the specified IPADDRs are in the proper dotted decimal form, that there is a colon delimiter between the IPADDR and port, and that the port number is valid.

If needed, issue the DISPLAY THREAD TYPE(INDOUBT) command to display information (including LOCATION, LUWID, and LUNAME values) about all indoubt threads. Correct the RESET INDOUBT command specification, and reissue the command.

DSNL441I KEYWORD 'LUWID' PARAMETER VALUE *parmvalue* FORMAT IN ERROR

Explanation: A RESET INDOUBT command with the LUWID parameter was issued, but the specified parameter value (*parmvalue*) has an invalid format for an LUWID. There are two correct formats for the LUWID parameter. The first correct format is called a token, and is a 1 to 5 digit decimal number. The second correct format is 'netid.luname.luwnunique.comseq', where:

netid A 1 to 8 character network ID

luname A 1 to 8 character luname

luwnunique A 12 character hexadecimal number

comseq A 4 character hexadecimal number

All fields in the second correct format must be separated by a period (.) delimiter.

System Action: Indoubt information about the specified logical unit of work is not purged from the system.

User Response: To determine the correct LUWID value for the unit of work indoubt information that you want to purge, issue the DISPLAY THREAD TYPE(INDOUBT) command to display all units of work for which indoubt information exists. Then reissue the RESET INDOUBT command, specifying the correct LUWID parameter value.

DSNL442I QUALIFYING INDOUBT INFORMATION FOR LOCATION *location* NOT FOUND

Explanation: A -RESET INDOUBT LOCATION('location') command was issued, but DB2 has no indoubt information about the specified location.

location The value specified after the LOCATION keyword in the RESET INDOUBT command.

System Action: No indoubt information was purged. System processing continues normally.

User Response: Use the -DISPLAY THREAD(*)

TYPE(INDOUBT) LOCATION(*) command to list the locations for which DB2 has indoubt information. After determining the correct location, reissue the command.

DSNL443I QUALIFYING INDOUBT INFORMATION FOR LUWID=*value* NOT FOUND

Explanation: A -RESET INDOUBT LUWID('value') command was issued where 'value' is either an luwid or the local token that represents an luwid. Either DB2 has no indoubt information about the specified luwid or token, or DB2 has indoubt information that cannot be purged using the -RESET INDOUBT command with the LUWID option.

value The global logical unit of work id or the local token that was specified for the LUWID keyword in the RESET INDOUBT command.

System Action: No indoubt information was purged. System processing continues normally.

User Response: Use the -DISPLAY THREAD(*) TYPE(INDOUBT) LOCATION(*) command to list the indoubt information known to DB2. If the -DISPLAY THREAD output does not include information about the specified luwid, then that is the reason the message was issued. If the -DISPLAY THREAD output does include information about the specified luwid, this information cannot be purged using the -RESET INDOUBT command with the LUWID option. Refer to the description of each message produced by the -DISPLAY THREAD output that relates to the specified luwid in order to determine how to proceed. After determining the correct luwid or token, reissue the command.

DSNL444I QUALIFYING INDOUBT INFORMATION FOR LOCATION *location* HAS BEEN PURGED

Explanation: A -RESET INDOUBT LOCATION('location') command issued to purge indoubt information about the named location completed successfully and the indoubt information was purged.

location

Either the relational database name (location-name) or the logical unit name (<lname>) that was specified after the LOCATION keyword on the RESET INDOUBT command.

System Action: The specified indoubt information was purged. System processing continues normally.

DSNL445I QUALIFYING INDOUBT INFORMATION FOR LUWID *value* HAS BEEN PURGED

Explanation: A -RESET INDOUBT LUWID('value') command, which was issued to purge indoubt information about the specified luwid, completed successfully. The indoubt information was purged.

value The value specified for the LUWID keyword in the -RESET INDOUBT LUWID(value) command that is being processed.

System Action: System processing continues normally.

DSNL446I COLD START WILL BE PERFORMED WITH *nettype netvalue*

Explanation: A -RESET INDOUBT LUNAME('lname') FORCE or a -RESET INDOUBT IPADDR('ipaddr') FORCE command issued to force a cold start completed successfully. The next connection with 'lname' or 'ipaddr' is a cold start.

nettype

Identifies the type of network used to access the remote site. There are two possible values:

LU -- indicates that VTAM is used to connect to the remote site.

IPADDR -- indicates that TCP/IP is used to connect to the remote site.

netvalue

The network address of the remote location.

- If *nettype* is LU, *netvalue* specifies the VTAM LU name of the remote location.
- If *nettype* is IPADDR, *netvalue* specifies the dotted decimal IP address of the remote location.

System Action: System processing continues normally.

DSNL447I CANNOT DELETE ENTRY '*value*' BECAUSE THERE IS AN INDOUBT THREAD TO BE RESOLVED FIRST

Explanation: A -RESET INDOUBT command was issued with LUNAME(value), IPADDR(value), LOCATION(value), or LUWID(value). The 'value' is an LU name, an IP address, a location, or a LUWID (or its token), that identifies a logical unit of work for which DB2 has participant indoubt resolution responsibility, coordinator indoubt resolution responsibility, or both.

System Action: Resynchronization responsibility information was not purged. System processing continues normally.

User Response: Use the information in this section to determine the correct action to take. Then issue the proper command to perform that action.

The two most probable causes for the problem are that the -RESET INDOUBT command was issued with the wrong parameters, or that an incorrect 'value' was specified. Use the -DISPLAY THREAD(*) TYPE(INDOUBT) LOCATION(*) command to display the indoubt information known to DB2.

1. If the intent was to purge participant or coordinator indoubt resolution responsibility, then examine the -DISPLAY THREAD output to determine the location name, or names, for which this responsibility is to be purged. Then use the -RESET INDOUBT LUNAME(luname) command with the FORCE option or the -RESET INDOUBT IPADDR(ipaddr) command with the FORCE option to purge this responsibility.

To determine the luname or IP address and resync port for an upstream coordinator that can be used with the FORCE option, look at the coordinator information from the DSNV408I message in the -DISPLAY THREAD output. There are two tokens associated with the coordinator information that are delimited by a colon (":").

- The first token is the partner location name or "<luname>" for an SNA connection, or the dotted decimal IP address for a TCP/IP connection (nnn.nnn.nnn.nnn).
- The second token is the partner LU name for an SNA connection, or the resync port number for a TCP/IP connection.

To determine the luname or IP address and resync port for downstream participants that can be used with the FORCE option, look at the location names from the DSNV450I and DSNV446I messages. There are two or three tokens associated with the participant location which are delimited by a colon (":").

- The first token is the partner location name.
- The second token is the partner LU name for an SNA connection, or the dotted decimal IP address for a TCP/IP connection (nnn.nnn.nnn.nnn).
- The third token only appears if the second token is an IP address in which case the third token is the partner resync port number.

See the description of the -RESET INDOUBT command in *DB2 Command Reference* for more information.

Remember that the FORCE option causes DB2 to purge all knowledge of indoubt resolution responsibility involving the luname or ipaddrspecified on the command.

Use caution when using the FORCE parameter to purge participant indoubt information when no errors are precluding automatic resolution. Normally, after the use of the RECOVER INDOUBT command, automatic resolution with the coordinator determines if heuristic damage occurred. This detection is lost if RESET INDOUBT is used before automatic resolution with the coordinator can be achieved.

Use caution when using the FORCE parameter to purge coordinator indoubt information when no errors are precluding automatic resolution. Once the

information is purged, any participant that is indoubt is forced to use a heuristic decision process to resolve the indoubt logical unit of work.

2. Examine the -DISPLAY THREAD output. If the value specified in the command (and displayed in the DSNL447I message) is incorrect, determine the correct value and reissue the command using the correct value.

DSNL448I UNABLE TO FORCE COLD START WITH *nettype netvalue*, SESSION STILL EXISTS

Explanation: A -RESET INDOUBT LUNAME('luname') FORCE or a -RESET INDOUBT IPADDR('ipaddr') FORCE command was issued to force a cold start, but network connections still exist between DB2 and the partner 'luname' or 'ipaddr'. The information related to this partner was not purged, so a cold start is not performed.

nettype

Identifies the type of network used to access the remote site. There are two possible values:

LU -- indicates that VTAM is used to connect to the remote site.

IPADDR -- indicates that TCP/IP is used to connect to the remote site.

netvalue

The network address of the remote location.

- If *nettype* is LU, *netvalue* specifies the VTAM LU name of the remote location.
- If *nettype* is IPADDR, *netvalue* specifies the dotted decimal IP address of the remote location.

System Action: System processing continues normally.

User Response: For SNA, you can use the VTAM command DISPLAY NET to determine the existence of sessions between two logical units. Terminate the sessions by using the VTAM command VARY NET,TERM to allow the RESET INDOUBT to occur. For TCP/IP, terminate all connections to the IP address. Determine the correct luname or ipaddr and reissue the command.

DSNL449I DB2 HAS NO INFORMATION RELATED TO LUNAME *luname*

Explanation: A -RESET INDOUBT LUNAME('luname') FORCE command was issued but DB2 has no knowledge of the specified 'luname'.

luname

The logical unit name, as defined to VTAM, of the coordinator or participant

System Action: No information was purged. System

processing continues normally.

User Response: Determine the correct luname as follows:

- Use the -DISPLAY THREAD(*) TYPE(INDOUBT) LOCATION(*) command to determine locations for which DB2 has indoubt responsibility.
- Query the SYSIBM.LOCATIONS table to correlate a location name with an luname. The LINKNAME column contains the luname associated with the location name in the LOCATION column.

Then reissue the command, specifying the correct luname.

DSNL450I DDF THREAD *luwid=token* IS BETWEEN PHASE 1 AND PHASE 2 OF COMMIT. THREAD IS NOW AN INDOUBT THREAD AS A RESULT OF CANCEL REQUEST.

Explanation: The identified DDF thread was in a prepared state waiting for the commit or backout decision of the commit coordinator. The thread cannot be canceled in this state. However, the thread was removed from the active state and placed into the indoubt state. The conversation with the coordinator was deallocated. The thread is now indoubt and appears in the display thread report for indoubt threads. The resources held by the thread continue to be held. Automatic resolution of the indoubt state is attempted periodically. Resources held by the thread are released after indoubt resolution occurs.

luwid=token

The global logical unit of work id and the local token that identify the thread

System Action: Processing continues normally.

Operator Response: If the purpose of canceling this thread was to free the resources held by the thread, call the database administrator.

Database Administrator Action: To release the resources held by the indoubt thread before automatic resolution with the coordinator, a manual commit or abort decision can be made with the RECOVER INDOUBT command. First, issue the DISPLAY THREAD command for an indoubt thread report, which includes the subject thread. From this report, determine the name of the coordinator. Contact the coordinator system and find out whether a commit or abort decision was made.

DSNL451I QUALIFYING INDOUBT INFORMATION FOR LUNAME *luname* NOT FOUND

Explanation: A -RESET INDOUBT LUNAME('luname') command was issued, but DB2 has no indoubt information about the specified luname.

luname

The logical unit name, as defined to VTAM, of the coordinator or participant

System Action: No indoubt information was purged. System processing continues normally.

User Response: Use the -DISPLAY THREAD(*) TYPE(INDOUBT) LOCATION(*) command to list the locations for which DB2 has indoubt information. Entries associated with a particular LUNAME have a location name in this form: '<luname>'. Use 'luname' (without the enclosing brackets) as the input string to RECOVER INDOUBT.

After determining the correct luname, reissue the command.

DSNL452I QUALIFYING INDOUBT INFORMATION FOR LUNAME *luname* HAS BEEN PURGED

Explanation: A -RESET INDOUBT LUNAME('luname') command, which was issued to purge indoubt information about the specified luname completed successfully. The indoubt information was purged.

luname

The luname specified for the LUNAME keyword in the -RESET INDOUBT LUNAME(luname) command being processed.

System Action: The specified indoubt information was purged. System processing continues normally.

DSNL453I *csect* QUALIFYING INDOUBT INFORMATION FOR IPADDR *ipaddr* NOT FOUND

Explanation: A -RESET INDOUBT IPADDR('ipaddr') command was issued, but DB2 has no indoubt information about the specified IP address.

csect The CSECT name of the DB2 module that issued the message

ipaddr The dotted decimal IP address of the coordinator or participant

System Action: No indoubt information was purged. System processing continues normally.

User Response: Use the -DISPLAY THREAD(*) TYPE(INDOUBT) LOCATION(*) command to list the locations for which DB2 has indoubt information. Entries associated with TCP/IP have a string with this format in the LOCATION field: "nnn.nnn.nnn.nnn".

After determining the correct *ipaddr*, reissue the command.

DSNL454I *csect* **QUALIFYING INDOUBT INFORMATION FOR IP ADDRESS** *ipaddr*
HAS BEEN PURGED

Explanation: A -RESET INDOUBT IPADDR('ipaddr') command, which was issued to purge indoubt information about the specified IP address completed successfully. The indoubt information was purged.

csect The CSECT name of the DB2 module that issued the message

ipaddr The IP address specified for the IPADDR keyword in the -RESET INDOUBT IPADDR(ipaddr) command being processed

System Action: The specified indoubt information was purged. System processing continues normally.

DSNL455I *csect* **DB2 HAS NO INFORMATION RELATED TO IP ADDRESS** *ipaddr*

Explanation: A -RESET INDOUBT IPADDR('ipaddr') FORCE command was issued but DB2 has no knowledge of the specified 'ipaddr'.

csect The CSECT name of the DB2 module that issued the message.

ipaddr The dotted decimal TCP/IP address of the coordinator or participant

System Action: No information was purged. System processing continues normally.

User Response: Determine the correct luname as follows:

- Use the -DISPLAY THREAD(*) TYPE(INDOUBT) LOCATION(*) command to determine locations for which DB2 has indoubt responsibility. Entries associated with TCP/IP locations specify "nnn.nnn.nnn.nnn" in the LOCATION field.

Reissue the command; specify the correct ipaddr.

DSNL500I **CONVERSATION FAILED TO LOCATION=locname**
RESOURCE=luname.modename.
convid.sessid RTNCD=global vtam
primary return code FDBK2=global vtam
secondary return code
RCPRI=appc-specific primary return code
RCSEC=appc-specific secondary return
code SENSE=sna sense code

Explanation: An advanced program-to-program communications (APPC) conversation failed, or could not be allocated, because a VTAM return code indicates a conversation failure. VTAM return codes are defined in *VTAM for MVS/ESA Programming for LU 6.2*.

SNA sense codes that start with 00 represent DB2 reason codes. Refer to Part 6, "SNA codes," on page 1341 for a description of more common SNA sense codes returned to DB2 by VTAM.

The variables that are not return codes are described as follows:

Variable	Description
<i>locname</i>	The location name associated with the remote site.
<i>luname</i>	The VTAM LU name associated with the remote location.
<i>modename</i>	The logon mode used by DB2 to allocate the conversation.
<i>convid</i>	The conversation identifier given DB2 by VTAM when the conversation was allocated.
<i>sessid</i>	The session identifier given DB2 by VTAM when the conversation was allocated.

System Action: Communication on the conversation is discontinued.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *VTAM for MVS/ESA Programming for LU 6.2* for failure analysis or Part 4, "Section 4. DB2 Codes," on page 773 for information on reason codes.

DSNL501I **CNOS PROCESSING FAILED FOR LU**
luname AND MODE modename
RTNCD=global vtam return code
FDBK2=global vtam secondary return
code RCPRI=appc-specific primary return
code RCSEC=appc-specific secondary
return code SENSE=vtam sense code

Explanation: A failure occurred while attempting to negotiate limits with the specified location for a LU and mode. VTAM return codes are described in *VTAM for MVS/ESA Programming for LU 6.2*. VTAM sense codes that start with 00 represent DB2 reason codes.

The variables are described as follows:

Variable	Description
luname	The VTAM LU name associated with the remote location.
modename	The logon mode used by DB2 to allocate the conversation.

System Action: All communication to the remote location fails until the limits can be negotiated with the remote location.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *VTAM for MVS/ESA Programming for LU 6.2* for failure analysis or

Part 4, "Section 4. DB2 Codes," on page 773 for information on reason codes.

DSNL502I **SYSTEM CONVERSATION FAILED TO LOCATION** *locname*
RESOURCE=*luname.modename*.
convid.sessid **RTNCD=***global vtam*
primary return code **FDBK2=***global vtam*
secondary return code
RCPRI=*appc-specific primary return code*
RCSEC=*appc-specific secondary return code* **SENSE=***sna sense code*

Explanation: A system conversation failed, or could not be allocated, because VTAM returned a nonzero return code. VTAM return codes are defined in *VTAM for MVS/ESA Programming for LU 6.2*.

SNA sense codes that start with 00 represent DB2 reason codes. Refer to Part 6, "SNA codes," on page 1341 for a description of more common SNA sense codes returned to DB2 by VTAM.

The variables are described as follows:

Variable	Description
<i>locname</i>	The location name associated with the remote site.
<i>luname</i>	The VTAM LU name associated with the remote location.
<i>modename</i>	The logon mode used by DB2 to allocate the conversation.
<i>convid</i>	The conversation identifier given DB2 by VTAM when the conversation was allocated.
<i>sessid</i>	The session identifier given DB2 by VTAM when the conversation was allocated.

System Action: Communication on the conversation is not allowed.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *VTAM for MVS/ESA Programming for LU 6.2* for failure analysis or Part 4, "Section 4. DB2 Codes," on page 773 for information on reason codes.

DSNL504I *csect-name* **RESOURCE UNAVAILABLE**
REASON=*reason* **TYPE=***type*
LOCATION=*location* **NAME=***name*

Explanation: The requested function requires a resource that is currently unavailable. The reason code, type, location, and name identifies the resource.

Operator Response: Note the reason, type codes, location, and name.

Problem Determination: The reason for the

resource's unavailability is identified by the reason code. The reason codes that appear in this message are described in Part 4, "Section 4. DB2 Codes," on page 773. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

DSNL510I *csect-name* **CONVLIMIT NEGOTIATED**
FROM *x* **TO** *y* **WITH LOCATION** *locname*
FOR LU *luname* **AND MODE** *modename*

Explanation: The maximum conversation limit is changed for a mode with a remote subsystem. The limit might change when a CNOS request is received from or sent to a remote subsystem, and the limit is determined by VTAM.

x The most recent value of CONVLIMIT before the last CNOS request was processed by advanced program-to-program communications (APPC)/VTAM for the specified mode name to the specified location.

y The current value of CONVLIMIT for the specified mode name to the specified location.

locname
The location name associated with the remote site that sent the CNOS request to the local DB2 subsystem, or received the CNOS request from the local DB2 subsystem.

luname
The VTAM LU name associated with the remote location that had its CONVLIMIT changed.

modename
The logon mode for the specified location that had its CONVLIMIT changed.

System Action: Conversation requests are queued when the maximum conversation limit is reached for a mode to remote subsystem.

DSNL511I *csect* **TCP/IP CONVERSATION FAILED TO LOCATION** *locname* **IPADDR=***ipaddr*
PORT=*port* **SOCKET=***socket* **RETURN CODE=***'rc'X* **REASON CODE=***'reason'X*

Explanation: A TCP/IP socket call failed with the error condition identified by *rc* and *reason*.

Variable	Description
csect	The CSECT name of the DB2 module that issued the message.
locname	The location name associated with the remote site.
ipaddr	The IP address of the remote site in dotted decimal format.

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- port** The TCP/IP port used by the remote site.
- socket** The TCP/IP socket call that returned the error.
- rc** The error condition reported by TCP/IP. The return code values are documented in *z/OS UNIX System Services Programming: Assembler Callable Services Reference*.
- reason** Provides further detail associated with the TCP/IP return code. The reason code values are documented in *z/OS UNIX System Services Programming: Assembler Callable Services Reference*.

System Action: Communication on the conversation is discontinued.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *z/OS UNIX System Services Programming: Assembler Callable Services Reference* for an explanation of the error.

Problem Determination: See System Programmer Response.

DSNL512I *csect* TCP/IP *socket* FAILED WITH RETURN CODE=*rc*X AND REASON CODE=*reason*X

Explanation: A TCP/IP socket call used to establish communication between DB2 and TCP/IP failed.

Variable

	Description
<i>csect</i>	The CSECT name of the DB2 module that issued the message.
<i>socket</i>	The name of the TCP/IP socket call that failed.
<i>rc</i>	The return code reported by TCP/IP. The return code values are documented in <i>z/OS UNIX System Services Programming: Assembler Callable Services Reference</i> .
<i>reason</i>	The reason code reported by TCP/IP. The reason code values are documented in <i>z/OS UNIX System Services Programming: Assembler Callable Services Reference</i> .

System Action: DB2 may periodically retry the socket call to establish TCP/IP communication.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *z/OS UNIX System Services Programming: Assembler Callable Services Reference* for an explanation of the error.

- If *socket*=SETRLIMIT and *reason code*=1148033C, then you should define DB2 as a superuser. See *DB2 Installation Guide* for instructions on enabling DDF as a superuser.

- If *socket*=TCPKEEPALIVE, then DB2 issues this socket call as a result of the TCP/IP KeepAlive value specified in the DB2 parameters module (usually DSNZPARM). You may specify this value by the TCP/IP KEEPALIVE value in the DSNTIP5 installation panel. Another way to specify the value is through the TCPKPALV value in the DSN6FAC macro, used to build the DB2 parameters module.

In this situation, processing continues, and DB2 does not retry the socket call. Verify that the TCP/IP stack being used by DB2 contains the required companion support for this function. If not, modify the DB2 parameter module to prevent DB2 from attempting to override the TCP/IP stack value.

- If *socket*=GETHOSTBYADDR(ip-address), then DB2 invoked a TCP/IP GetHostByAddr socket call to determine the domain name for the specified IP address. However, the call failed, and DB2 is not able to determine the domain name. DB2 retries the socket call periodically.

During DDF initialization, DB2 first determines the IP address via a GetHostID socket call. The IP address returned is the first IP address listed in the HOME statement of the TCP/IP profile for the selected TCP/IP stack. Verify the IP address. DDF must be stopped and restarted in order for DDF to obtain a new IP address.

Note: The IP address returned could depend on the selected TCP/IP stack, in the event that there are multiple TCP/IP stacks. DB2 requires OS/390 Open Edition sockets, and it is Open Edition that determines the TCP/IP stack to use. OS/390 Open Edition provides a way for users to select a specific TCP/IP stack by using the BPXTCAFF utility. For more information on BPXTCAFF, see *UNIX System Services Planning, SC28-1890*.

Using this IP address, DB2 issues a GetHostByAddr socket call to determine the associated domain name. The OS/390 Resolver handles the GetHostByAddr socket call because DB2 uses the OS/390 Open Edition Asynchronous Sockets interface. This resolver uses the resolver configuration information available to DDF. Until this information for the selected TCP/IP stack is correctly specified for DDF, the OS/390 Resolver will be unable to determine the domain name for DDF. You can find the search order for the "resolver configuration files" for an OS/390 application, such as DDF, in the IP Configuration manual for the appropriate level of the Communication Server for your OS/390 operating system.

Problem Determination: See System Programmer Response.

DSNL513I *csect* TCP/IP GETHOSTBYNAME
 FAILED WITH ERRNO=*errno* FOR
 DOMAIN *domain*

Explanation: DB2 encountered a TCP/IP gethostbyname socket call error when attempting to convert a TCP/IP domain name into an IP address.

Variable

Description

- csect** The CSECT name of the DB2 module that issued the message.
- errno** The error condition reported by TCP/IP. The *errno* values are documented in *IBM TCP/IP for MVS: Application Programming Reference*.
- domain** The TCP/IP domain name that DB2 wants to convert into an IP address. DB2 obtains the *domain* value from the IPADDR column of the SYSIBM.IPNames communications database table.

System Action: The row in SYSIBM.IPNames containing the specified *domain* in the IPADDR column is invalid. If the error occurs during DDF startup, the row in SYSIBM.IPNames is ignored. If the error occurs during an SQL statement, the SQL statement fails and the location associated with the SYSIBM.IPNames row is not available for TCP/IP communication.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *IBM TCP/IP for MVS: Application Programming Reference* for an explanation of the error. Correct the IPADDR column value in SYSIBM.IPNames or register the *domain* with TCP/IP.

Problem Determination: See System Programmer Response.

DSNL514I *csect-name* TCP/IP SERVICE *serv* IS
 NOT DEFINED

Explanation: The TCP/IP getservbyname socket call did not find a matching definition for *serv*.

Variable

Description

- serv** The TCP/IP service name that DB2 wants to convert into a TCP/IP port number. DB2 obtains the service name from the PORT column of the SYSIBM.LOCATIONS communication database table.

System Action: The row in SYSIBM.LOCATIONS containing the specified service name in the PORT column is invalid. The associated LOCATION cannot be used for TCP/IP communication. If the error occurs during an SQL statement, the SQL statement fails.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: If the value specified by *serv* is incorrect, correct the PORT column value in SYSIBM.LOCATIONS.

If the value specified by *serv* is correct, register the service name with TCP/IP.

TCP/IP service names are case sensitive, so make sure that the PORT column in SYSIBM.LOCATIONS is an exact match for the service name defined to TCP/IP.

Problem Determination: See System Programmer Response.

DSNL515I *csect* TCP/IP BIND FOR PORT *port*
 FAILED WITH RETURN CODE=*rc*
 AND REASON CODE=*reason*X

Explanation: DB2 encountered an error on the TCP/IP bind socket call while attempting to register a TCP/IP port number with the TCP/IP instance.

Variable

Description

- csect** The CSECT name of the DB2 module that issued the message.
- port** The TCP/IP port number DB2 wants to register with the TCP/IP instance.
- rc** The return code reported by TCP/IP. The return code values are documented in *z/OS UNIX System Services Programming: Assembler Callable Services Reference*.
- reason** The reason code reported by TCP/IP. The reason code values are documented in *z/OS UNIX System Services Programming: Assembler Callable Services Reference*.

System Action: If this error occurs for the TCP/IP port that is used for incoming DRDA requests, the error is probably caused by DB2 restarting on a CEC that already has another DB2 subsystem using the DRDA port number. DB2 will continue to try to activate the TCP/IP port number periodically.

If this error occurs for a TCP/IP port that is used for incoming DRDA requests to an ALIAS, the error is probably caused by some of the reasons that an error would occur for the normal DRDA request port. Check to ensure that the port value was also not previously reserved for another application in the system's TCP/IP profile. DB2 will continue to try to periodically activate the TCP/IP port number.

If this error occurs for the DRDA resynchronization port, DB2 invokes internal processing that is equivalent to STOP DDF MODE(FORCE).

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to *z/OS UNIX System Services Programming: Assembler Callable Services Reference* for an explanation of the error.

Define DB2's TCP/IP port number to the TCP/IP instance, or use the change log inventory utility to correct the TCP/IP port number used by DB2.

Problem Determination: See System Programmer Response.

DSNL516I *csect-name* **LANGUAGE ENVIRONMENT SERVICES NOT AVAILABLE. CEEPIPI ROUTINE CANNOT BE LOADED**

Explanation: DB2 must load the Language Environment interface module (CEEPIPI) to process functions requiring Language Environment services. These Language Environment services are required for TCP/IP socket calls, encryption and decryption, and so on. If the CEEPIPI module is not included in an accessible data set such as STEPLIB data sets or the LPA library, DDF is unable to use the Language Environment.

System Action: DDF startup continues, but DDF users cannot use DB2 functions that require Language Environment services.

System Programmer Response: Add the Language Environment library to the DDF STEPLIB concatenation or to the LPA library. The Language Environment library must be APF authorized when it appears in the DDF STEPLIB concatenation.

Problem Determination: Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 1.

DSNL517I *csect-name* **CEEPIPI func SERVICE FAILED WITH RETURN CODE=rc**

Explanation: DB2 uses the Language Environment CEEPIPI service to issue certain TCP/IP socket calls. The Language Environment return code *rc* was not expected for the indicated Language Environment function call.

func The function requested by DB2. Possible values are:

add_entry(module-name)

Add an entry to the Language Environment PIPI table dynamically. Module-name is the name of the module that failed to be added to the PIPI table.

call_sub

Run a program that issues a TCP/IP socket call using an existing Language Environment run time environment.

del_sub

Delete an entry from the Language Environment PIPI table dynamically.

init_sub

Create Language Environment sub run time environment.

term

Terminate the Language Environment run time environment.

rc The return code received from CEEPIPI.

System Action: The attempt to issue the LE/370 request fails.

If this message is issued during DDF startup, DDF startup continues.

If this message is issued during an SQL statement, a -904 SQLCODE is returned to the calling application.

System Programmer Response: See Problem Determination.

Problem Determination: Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 1.

Refer to the Language Environment return codes from CEEPIPI in *Language Environment for OS/390 & VM Programming Guide* for additional information.

If the function requested by DB2 was *add_entry(module-name)*, an incorrect link edit of the module could create unresolved references. To determine if link edit problems exist, run the OS/390 AMBLIST utility with LISTLOAD and OUTPUT=XREF.

DSNL518I *csect-name* **LE/370 ENCLAVE FAILED WITH RETURN CODE=erc AND FEEDBACK=fi**

Explanation: DB2 uses the Language Environment CEEPIPI call_sub service to execute certain TCP/IP socket calls. The CEEPIPI interface returned information indicating a failure occurred while executing the TCP/IP socket.

erc The Language Environment enclave return code.

fi Contains one or two message identifiers. The message identifiers are constructed from the Language Environment condition token.

The message identifiers are constructed as follows:

- Single message: Facility_Id combined with Msg_No
- Two messages: Facility_Id combined with Class_Code and Facility_Id combined with Cause_Code

System Action: The SQL statement fails with SQLCODE -904.

System Programmer Response: A description of the

Language Environment enclave return code and the condition token are documented in *Language Environment for OS/390 & VM Programming Guide*.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1. 4.

DSNL519I *csect* **TCP/IP SERVICES AVAILABLE FOR DOMAIN** *tcpdomain* **PORT** *tcpport*

Explanation: DB2 encountered a TCP/IP failure during DDF startup processing. The DSNL515I message identifies the cause of the failure. After the failure is detected, DDF periodically attempts to reinitialize TCP/IP to allow remote connections. This message is issued when reinitialization is successful.

Variable

Description

csect The CSECT name of the DB2 module that issued the message.

domain

The TCP/IP port number used by this DB2 subsystem to accept incoming DRDA connection requests.

System Action: The DB2 TCP/IP port number is available to accept incoming DRDA connection requests.

- If PORT is non-zero, RESPORT must also be non-zero.
- If RESPORT is non-zero, PORT must also be non-zero.
- PORT and RESPORT must not specify the same value.

Variable

Description

port The TCP/IP port number used by this DB2 subsystem to accept incoming DRDA SQL connection requests.

rport The TCP/IP port number used by this DB2 subsystem to accept incoming 2-phase commit resynchronization requests.

System Action: DDF startup terminates abnormally.

System Programmer Response: Use the Change Log Inventory utility (DSNJU003) to correct the TCP/IP port numbers used by DB2.

DSNL520I *csect* **TCP/IP SERVICES AVAILABLE FOR RESPORT** *port*

Explanation: DB2 encountered a TCP/IP failure during DDF startup processing. The DSNL515I message identifies the cause of the failure. After the failure is detected, DDF periodically attempts to reinitialize TCP/IP to allow TCP/IP resynchronization to occur. This message is issued when reinitialization is successful.

Variable

Description

csect The CSECT name of the DB2 module that issued the message.

port The TCP/IP port number used by this DB2 subsystem to accept incoming resynchronization connection requests.

System Action: The DB2 TCP/IP port is available to accept incoming resynchronization connection requests.

DSNL522I *csect-name* **REQUIRED TCP/IP SUPPORT NOT AVAILABLE**

Explanation: The DB2 BSDS indicated that TCP/IP access was required, but the required TCP/IP interfaces were not available on this system. The required TCP/IP interfaces are provided by OS/390 Release 3.

System Action: DDF startup terminates abnormally.

System Programmer Response: Take one of the following actions:

- Install OS/390 Release 3 or later, so that the required TCP/IP interfaces are available.
- Use the Change Log Inventory utility (DSNJU003) to deactivate DB2's TCP/IP support, by specifying PORT=0 and RESPORT=0 on the DDF statement.

DSNL600I **RESOURCE UNAVAILABLE CORRELATION ID=*correlation-id* CONNECTION ID=*connection-id* LUW ID=*luw-id*=*token* REASON=*reason-code* TYPE=*resource-type* LOCATION=*location-name* NAME=*resource-name***

Explanation: This message is produced at the requesting site when a distributed request requires a resource that is not available.

The resource identified by 'resource-name' and 'resource-type' was not available at 'location-name' due to the indicated reason code.

correlation-id

The correlation identifier of the thread associated with the requester of the resource. Correlation IDs beginning with '0nn' where 'nn' is a number from 01 to 28, identify system agents.

DSNL521I *csect-name* **INVALID DDF BSDS VALUES DETECTED (PORT=*port*,RESPORT=*rport*).**

Explanation: DB2 encountered invalid values for the TCP/IP port numbers in the DDF record of the BSDS. Valid TCP/IP port numbers must obey the following rules:

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connection-id

The connection identifier of the requester.

luw-id=token

The logical unit of work ID of the thread followed by an '=' sign and a token which may be used in place of luw-id in any DB2 command that accepts luw-id as input.

Refer to message DSNT500I under Chapter 18, "DSNT... Messages," on page 417 for an explanation of the resource type and resource name.

System Action: The SQL statement cannot be executed.

Operator Response: See Problem Determination.

Problem Determination: The reason the resource is unavailable is identified by the reason code. The reason codes are described in Part 4, "Section 4. DB2 Codes," on page 773. Collect the information described for the reason code received.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

DSNL700I *csect-name* **CDB RESOURCE UNAVAILABLE, DEFAULTS MAY BE USED REASON=*reason* TYPE=*type* NAME=*name***

Explanation: This message indicates that a requested function required the CDB which is currently unavailable. Defaults can be used to allocate conversations or set conversation limits with VTAM and TCP/IP partners.

System Action: If the SYSIBM.MODESELECT table is unavailable, VTAM defaults are used to allocate conversations. If the the SYSIBM.LUMODES table is unavailable, VTAM defaults can be used for conversation limits. If the SYSIBM.LOCATIONS, SYSIBM.IPNAMES, SYSIBM.LULIST, or SYSIBM.LUNAMES tables are unavailable, conversations can not be allocated to remote LOCATIONS.

Operator Response: Note the REASON code, the TYPE code, and the NAME. See Problem Determination section for an explanation of the collected data.

Problem Determination: The reason the resource is unavailable is identified by a reason code. The reason codes that appear in this message are described in Part 4, "Section 4. DB2 Codes," on page 773. Use the table defined for message DSNT500I to find the TYPE of resource identified in the message.

DSNL701I **CDB OBJECT *object-name* DOES NOT EXIST**

Explanation: The communications database (CDB) does not contain *object-name*. The incorrect

object-name can be the database name, the table space name, or the table name.

System Action: Termination of the distributed data facility (DDF) is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine what caused the failure, define the object as required, and issue the -START DDF command.

Problem Determination: Print the definition of the communications database (CDB).

DSNL702I **CDB TABLE *table-name* DOES NOT HAVE PROPER COLUMN DEFINITIONS, COLUMN *column-name* IS MISSING OR INCORRECTLY DEFINED**

Explanation: The communications database (CDB) needs a definition for '*column-name*' in '*tablename*'. The current definition is missing or incorrect.

System Action: Termination of the distributed data facility (DDF) is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine what caused the failure, define the column as required, and issue the -START DDF command.

Problem Determination: Print the definition of the communications database (CDB).

DSNL703I **CDB TABLE *table-name* DOES NOT HAVE PROPER INDEX DEFINITIONS, INDEX *index-name* IS MISSING OR INCORRECTLY DEFINED**

Explanation: The communications database (CDB) requires an index name for *table-name*. The current definition is missing or incorrect.

System Action: The distributed data facility (DDF) terminates.

Operator Response: Notify the system programmer.

System Programmer Response: Define the index as required and issue the -START DDF command. Refer to Part 3 of *DB2 Installation Guide*.

Problem Determination: Print the definition of the communications database (CDB).

DSNL704I **CDB OBJECT *object-name* DOES NOT HAVE PROPER REFERENTIAL CONSTRAINT DEFINITIONS**

Explanation: The communications database (CDB) requires referential constraint definitions for '*object-name*'. The current definition is missing or incorrect.

System Action: Termination of the distributed data facility (DDF) is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine what caused the failure, define the missing referential constraint, and issue the -START DDF command. Refer to Part 3 of *DB2 Installation Guide* .

Problem Determination: Print the definition of the communications database (CDB).

DSNL705I CDB IS UNAVAILABLE OR INCORRECTLY DEFINED

Explanation: During start-up of the distributed data facility, the required CDB was unavailable or incorrectly defined.

System Action: Termination of the DDF is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to the previous message that specifies the cause of the CDB failure (DSNL700I, DSNL701, DSNL702I, DSNL703I, or DSNL704I). Determine what caused the failure, fix the error condition, and issue the -START DDF command.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

DSNL706I *csect-name* AN ERROR HAS OCCURRED IN DDF EXIT ROUTINE *routine*

Explanation: An error occurred following invocation of a DDF exit routine by DB2.

The variable "routine" is the name of the exit routine, DSNLHLLx, invoked by DB2.

System Action: The system abends the failing database-access agent.

Chapter 13. DSNM... messages

All of the DSNM... messages are sent to the IMS master terminal operator (MTO), and to the appropriate MVS console.

DSNM001I IMS/TM xxxx CONNECTED TO SUBSYSTEM yyyy

Explanation: This is an information message only. The control region of the IMS/TM system specified in the message as 'xxxx' has successfully connected to the DB2 subsystem specified in the message as 'yyyy'. The message is sent to the IMS/TM master terminal operator.

System Action: IMS/TM transactions can access DB2 resources.

DSNM002I IMS/TM xxxx DISCONNECTED FROM SUBSYSTEM yyyy RC=rc

Explanation: The IMS/TM system named 'xxxx' control region has disconnected from the DB2 subsystem named 'yyyy' for the RC, reason code, of 'rc'. The message is sent to the IMS/TM master terminal operator. The reason code values are:

Value Description

- | | |
|----------|------------------------------------------------------------------------------------------------------------------|
| A | IMS/TM is terminating normally (for example, /CKPT FREEZE command). |
| B | IMS/TM is terminating abnormally. |
| C | DB2 is terminating in a quiesce fashion (for example, DB2 stop quiesce command). |
| D | DB2 is terminating abnormally. |
| E | The connection between IMS/TM and the DB2 subsystem is terminating; however, both subsystems remain operational. |

System Action: The connection between IMS/TM and DB2 terminated. IMS/TM transactions can no longer access DB2 resources.

Operator Response: Notify the system programmer.

System Programmer Response: Reason code A, C, or E makes this an information message. Reason code D indicates that a serious problem occurred in the DB2 subsystem, and that the SYS1.LOGREC should be examined. For reason code B or D, determine the failing subcomponent, and if you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SYS1.LOGREC and/or dump information may be available for reason codes B and D.

DSNM003I IMS/TM xxxx FAILED TO CONNECT TO SUBSYSTEM yyyy RC=rc

Explanation: The IMS/TM system (named 'xxxx') control region did not connect to the DB2 subsystem (named 'yyyy'). This message is sent to the IMS/TM master terminal operator. The return code 'rc' indicates the reason for the failure.

Value Description

- | | |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 00 | The DB2 subsystem is not operational. However, a notify message has been queued and, when the DB2 subsystem is started, it will automatically connect to IMS/TM. |
| 04 | The connection attempt failed between IMS/TM and the DB2 subsystem. |

System Action: IMS/TM transactions cannot access DB2 resources.

Operator Response: For return code 00, start the DB2 subsystem. For return code 04, notify the system programmer.

System Programmer Response: For return code 04, refer to Part 4 (Volume 1) of *DB2 Administration Guide* for failure analysis procedures.

Problem Determination: For return code 04, an IMS/TM attachment facility snap record (code X'5501FF') is written to the IMS/TM log to indicate the reason for the failure.

DSNM004I RESOLVE INDOUBT ENTRY(S) ARE OUTSTANDING FOR SUBSYSTEM xxxx

Explanation: The DB2 subsystem ID of 'xxxx' has 'indoubt' entry(s) remaining after the IMS/TM subsystem has attempted to resolve the work units that are indoubt. This message is sent to the IMS/TM master terminal operator.

System Action: The connection between the DB2 and IMS/TM subsystems remains active, and applications can access DB2 resources.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for failure analysis procedures. DB2 commands (DISPLAY THREAD and RECOVER INDOUBT) may be used to display and resolve the work unit(s) that are indoubt.

Problem Determination: Recovery information is available on the DB2 log and IMS/TM log to assist in the resolution of the work unit(s) indoubt. For each

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indoubt work unit, an IMS/TM attachment facility snap record (code X'5501FE') is written to the IMS/TM log.

DSNM005I IMS/TM RESOLVE INDOUBT PROTOCOL PROBLEM WITH SUBSYSTEM xxxx

Explanation: The DB2 subsystem ID of 'xxxx' has protocol incompatibilities with IMS/TM. The DB2 resolve indoubt process received an unknown or invalid recovery request (RRE) from IMS/TM. The request was rejected by DB2 and kept by IMS/TM. The message is sent to the IMS/TM master terminal operator.

System Action: The connection between the DB2 and IMS/TM subsystems remains active, and applications can access DB2 resources.

Operator Response: Notify the system programmer.

System Programmer Response: Call the support center after extracting from the IMS/TM log the IMS/TM attachment facility snap records (code X'5501FE') using the IMS/TM utility DFSERA10.

These records contain the complete request from IMS/TM to DB2, the request type is at offset X'01C', this is a four-character identifier which should contain any of the following words:

'SHOW', 'IDBT', 'COMM', or 'ABRT'.

If the IMS/TM recovery request (RRE) found in the log is an invalid one, (not 'COMM' or 'ABRT'), you may manually delete it using the IMS/TM/CHANGE SUBSYS RESET command after consulting with the support center.

If the IMS/TM request is a valid one (abort or commit), you must find the action that IMS/TM performed for that RRE by locating the X'3730' (commit) or X'3801' (abort) record in the IMS/TM log and perform the same action under DB2 by using the -RECOVER INDOUBT command. Also refer to Part 4 (Volume 1) of *DB2 Administration Guide* for more information about resolve-indoubt failure analysis.

Problem Determination: Recovery information is available on the DB2 log and IMS log to assist in the resolution of the problem. For each indoubt work unit, an IMS/TM attachment facility snap record (code X'5501FE') is written to the IMS/TM log.

DSNM100I SUBSYSTEM xxxx NOT AVAILABLE

Explanation: The IMS/TM command facility which routes commands to the DB2 subsystem cannot perform its functions because the DB2 subsystem named 'xxxx' is considered not operational.

System Action: The connection to the DB2 subsystem failed for the command. The command is rejected.

System Programmer Response: If the DB2

subsystem is operational, and if you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. The person entering the request may not be authorized to execute the command. If the DB2 subsystem is not operational, DB2 commands from IMS/TM cannot be processed.

Problem Determination: A snap record (X'5501FF') is written to the IMS/TM log if a connection request failed.

DSNM104I xxxx COMMAND FAILED

Explanation: The DB2 command specified by 'xxxx' failed to complete.

System Action: The command terminated without providing an output message. Commands will still be allowed by the IMS/TM attachment facility.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the command failed because of an abend, a snap record (X'5501FF') is written to the IMS/TM log and SYS1.LOGREC information is available.

Chapter 14. DSNN... message

**DSNN40 THE NUMBER YOU SELECTED IS NOT
A VALID SQL RETURN CODE NUMBER**

Explanation: The user looking at the SQL Return Codes Menu in DB2 HELP selected a number that is not a valid SQL return code.

System Action: The SQL Return Codes Menu continues to be displayed.

User Response: Select a valid SQL return code number, and try again.

Operator Response: Select a valid SQL return code number, and try again.

Chapter 15. DSNP... messages

The DSNP-prefixed messages contain a connection ID, a correlation ID, and a logical-unit-of-work ID. Messages that have the same connection ID, correlation ID, and logical-unit-of-work ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

DSNP0011 *csect – data-set-name IS WITHIN nk*
BYTES OF AVAILABLE SPACE.
RC=rrrrrrr CONNECTION-ID=xxxxxxx,
CORRELATION-ID=yyyyyyyyyyy,
LUW-ID=logical-unit-of-work-id=token

Explanation: This message warns of an impending space shortage. The data space manager (DSM) extend function CSECT 'DSNPmmmm' detected the space shortage through the use of a 'hedge' quantity 'n'. Reason code 'rrrrrrr' gives some information about why space could not be obtained. (See Part 4, "Section 4. DB2 Codes," on page 773.)

There might also be some preceding DSM and VSAM messages that can help to determine why space cannot be obtained. The connection, correlation, and logical-unit-of-work IDs identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

System Action: If sufficient space is available for the current request, continue. Otherwise, message DSNP007I follows, and the current SQL request fails.

Operator Response: DSM messages are directed to the database administrator (DBA) or system administrator. However, the DBA or system administrator can request that the operator issue an MVS WRITELOG operator command (for example, 'W A') to obtain MVS SYSLOG output. The SYSLOG sometimes contains media manager messages that might be helpful to the DBA or system administrator in determining why space could not be allocated.

System Programmer Response: Based on the reason code (RC) in the message, as well as information that might be available in access method services or VSAM messages preceding this one, try one of the following:

- If you do not anticipate further extension of this table space or index, ignore the message.

- If the table space or index is backed by storage group-defined data sets and this data set is not at maximum (123) extents, use the ALTER STOGROUP statement to add volumes to the storage group (up to 133 of them).
- If the table space or index is backed by 'user-defined' data sets, and not at maximum (123) extents for the data set, issue an ALTER ADDVOLUMES access method services command to provide additional volumes (up to 133 of them). Or, if the table space is nonpartitioned and the high allocated RBA is greater than or equal to 2GB (2,147,483,648) for the indicated data set, define the data set required for the next sequential piece. (Actually, in this case, there should be an indication in console messages or the reason code that the data set required for the next piece was not found.)
- If the data set is at maximum (123) extents, try reorganizing the table space or index into a data set or data sets having larger primary and secondary values. This process is discussed in Part 2 (Volume 1) of *DB2 Administration Guide*.

Problem Determination: Examine the console messages, SYS1.LOGREC information, and SYSLOG to determine the reason for the condition. Try to resolve it by the methods described in the Operator Response section of this message. If you feel that this message indicates a problem in an IBM program, you should provide the following sources of information about the problem:

- Console sheet showing the message and related messages that might precede or follow it.
- System log printout (obtained via MVS WRITELOG operator command) showing related VSAM/media manager messages that might appear there (usually needed only if you have a message or reason code that indicates a media manager services problem occurred).
- Integrated catalog facility (ICF) catalog listing showing characteristics of the data set in question and of the ICF catalog itself.
- VTOC listing of packs associated with the request, showing space available for data sets, catalogs, VTOC index, and the VTOC itself, as well as data set extent information.
- Any associated dumps.
- SYS1.LOGREC listing showing entries at or near the time of the problem (unless these appear in an associated dump).

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- Depending on the reason code, the results of certain SQL SELECT operations on DB2 catalog tables may be needed. (See Part 4, "Section 4. DB2 Codes," on page 773.)

DSNP002I *csect – DEFINE FAILED FOR data-set-name RC=rrrrrrrr CONNECTION-ID=xxxxxxxx, CORRELATION-ID=yyyyyyyyyy, LUW-ID=logical-unit-of-work-id =token*

Explanation: Data set definition failed (in CSECT 'DSNPmmmm') for the reason identified by RC. (See Part 4, "Section 4. DB2 Codes," on page 773.) The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem. The connection, correlation, and logical-unit-of-work IDs identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

System Action: The data space manager (DSM) terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to either the database administrator or the system administrator. Bring the message to their attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the reason code and preceding access method services messages, if any, and correct it, if possible. If an out-of-space condition exists, see the description of message DSNP001I for actions to consider.

Problem Determination: See Problem Determination of message DSNP001I for this information.

DSNP003I *csect – RESET FAILED FOR data-set-name. RC=rrrrrrrr CONNECTION-ID=xxxxxxxx, CORRELATION-ID=yyyyyyyyyyyyyy, LUW-ID=logical-unit-of-work-id=token*

Explanation: Reset, a data space manager (DSM) function invoked by DB2 utilities, failed in CSECT 'DSNPmmmm' for the reason identified by RC. (See Part 4, "Section 4. DB2 Codes," on page 773.) The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and tie together activities involving a given user.

System Action: DSM terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the reason code and preceding DB2, access method services, or VSAM messages, if any, and correct it, if possible.

It might be necessary to delete and redefine the data set using access method services. Consider making a backup copy before doing this. (Use DB2 utilities to make the copy; in general, VSAM utilities do not work on DB2 database services data sets.)

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP004I *csect – DELETE FAILED FOR data-set-name. RC=rrrrrrrr CONNECTION-ID=xxxxxxxx, CORRELATION-ID=yyyyyyyyyyyyyy, LUW-ID=logical-unit-of-work-id=token*

Explanation: Deletion failed in CSECT 'DSNPmmmm' for the reason identified by RC. (See Part 4, "Section 4. DB2 Codes," on page 773.) The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the

problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

The value of the LUWID is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUWID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

Severity: 8 (error)

System Action: DB2 terminates its actions associated with the current SQL request. DB2 might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the reason code and preceding access method services messages if any, and correct it, if possible. Check the data set and delete it by using access method services directly if reasonable to do so. Consider making a backup copy before doing this. (Use DB2 utilities to make the copy; in general, VSAM utilities do not work on DB2 data sets.)

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP005I *csect* – **COULD NOT REMOVE EXCESS VOLUMES FROM CANDIDATE LIST OF**
data-set-name **CONNECTION-**
ID=xxxxxxx, CORRELATION-
ID=yyyyyyyyyyy, LUW-ID=logical-unit-of-
work-id=token

Explanation: Volumes from a storage group were entered in the data set's candidate list and could not be removed by CSECT 'DSNPmmmm' after some data space manager (DSM) operation. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it

possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

This is not a major problem. However, the data set will not properly reflect subsequent deletions from the volume list in its storage group (via ALTER STOGROUP command in SQL), because the data set's integrated catalog facility (ICF) catalog entry still contains the volume serial numbers.

If needed, the storage group in question can be identified by issuing an SQL SELECT to get information about the table space or index that is identified by the third and fourth qualifiers (database name, table space name) in the data set name.

System Action: Operation continues.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Look for associated DSM and access method services messages preceding this one to get additional information. Attempt an ALTER REMOVEVOLUMES access method services command, if appropriate, after issuing a LISTCAT to see which volumes are recorded as 'candidate' in the integrated catalog facility (ICF) catalog.

Problem Determination: See Problem Determination for message DSNP001I for this information. (However, there should not be a need for VTOC or SYSLOG information for this case.)

DSNP006I *csect* – **REQUIRED STOGROUP**
DEFINED DATA SET NOT AVAILABLE—
data-set-name **RC=rrrrrrrr**
CONNECTION-ID=xxxxxxx,
CORRELATION-ID=yyyyyyyyyyy,
LUW-ID=logical-unit-of-work-id=token

Explanation: An attempt to alter the shareoptions of this data set failed. The data set could not be accessed for the reason indicated by RC. (See Part 4, "Section 4. DB2 Codes," on page 773.) The connection ID, correlation ID, and logical-unit-of-work ID (LUWID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

The value of the LUWID is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of the logical-unit-of-work-id in any DB2 command that accepts the logical-unit-of-work-id as input.

Messages having the same connection ID, correlation ID, and LUWID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

DSNP007I • DSNP008I

Severity: 8 (error)

System Action: DB2 terminates its actions associated with the current SQL request. DB2 might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP007I *csect* – EXTEND FAILED FOR
data-set-name. RC=rrrrrrr
CONNECTION-ID=xxxxxxx,
CORRELATION-ID=yyyyyyyyyyy,
LUW-ID=*logical-unit-of-work-id* =token

Explanation: Extension failed in CSECT 'DSNPmmmm' of the data space manager (DSM). The 'data-set-name' identifies the data set that is being extended. RC is the reason code, which indicates why the extend process failed. (See Part 4, "Section 4. DB2 Codes," on page 773.) The 'connection ID', 'correlation ID', and 'logical-unit-of-work ID' (LUW-ID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the 'LUW-ID' is not an '*', the value is a 'logical-unit-of-work-id' that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of 'logical-unit-of-work-id' in any DB2 command that accepts 'logical-unit-of-work-id' as input.

Messages that have the same 'connection ID', 'correlation ID', and 'LUW-ID' relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

System Action: The DSM terminates its actions associated with this extend request. Higher level functions might terminate if they cannot continue without a successful extend. In this case, additional console messages and/or SQL codes are produced. In other cases, higher level functions might be able to resolve the space need without the extend, so they continue normally.

System Programmer Response: The following sources of information are available to help determine the cause of the failure:

- See the Programmer Response for message DSNP001I.
- Analyze the RC value in conjunction with the console messages.
- The reason code might apply to the data set identified in the message or to another data set that is needed for the extend process. If the reason code indicates a data set access failure, the console messages indicate the data set name. For example, if the RC indicates 'resource unavailable', console messages identify the resource that is unavailable. Most likely, the message will be DSNT500I.
- Retrieve diagnostic information from the output of the DISPLAY DB...RESTRICT or DISPLAY UTIL(*)... commands.
- If the extend failed on a result table space, refer to "Sort Data Sets" in Part 5 (Volume 2) of *DB2 Administration Guide*.
- If the extend failed on an SQL insert or update, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.
- If you need to enlarge your data set, refer to "Out of DASD Space" in Part 4 (Volume 1) of *DB2 Administration Guide*.
- To find out how the extend function operates, refer to "Improving DASD Utilization" in Part 5 (Volume 2) of *DB2 Administration Guide*.

Operator Response: See Operator Response for message DSNP001I for this information.

System Programmer Response: See System Programmer Response for message DSNP001I for this information.

Problem Determination: See Problem Determination for message DSNP001I

DSNP008I *csect*– REQUIRED USER–DEFINED
DATA SET NOT AVAILABLE—*data-set-*
name RC=rrrrrrr CONNECTION-
ID=xxxxxxx, CORRELATION-
ID=yyyyyyyyyyy, LUW-ID=*logical-unit-of-*
work-id=token

Explanation: One of the following actions applied against user-defined data sets failed in CSECT 'DSNPmmmm' of the data space manager (DSM):

- Create table space or index
- Extend table space or index
- Process the SQL ALTER DATABASE statement
- Process the REORG TABLESPACE utility with SHRLEVEL REFERENCE or CHANGE

Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

One or more of the data sets could not be accessed for the reason indicated by RC. (See Part 4, "Section 4. DB2 Codes," on page 773.) The connection ID,

correlation ID, and logical-unit-of-work ID (LUWID) identify the user or application that encountered the problem.

The value of the LUWID is logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages having the same connection ID, correlation ID, and LUWID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

If the name of the data set in the message is different from the name of the original data set (for example, '...A002' instead of '...A001'), a new data set might need to be created. A different name indicates that the original data set exceeded its limit.

Severity: 8 (error)

System Action: DB2 terminates its actions associated with the current SQL request or utility. DB2 might terminate the current SQL request or utility or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Refer to the reason code in Part 4, "Section 4. DB2 Codes," on page 773. The return code description might indicate that one of the following actions needs to be performed or it indicates the necessary steps:

- If the data set does not exist, create it before attempting the create table space/index or extend data set again.
- If the data set shareoptions are incorrect, modify the shareoptions with access method services (AMS).
- The appropriate AMS command is ALTER SHAREOPTIONS.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP009I THE FOLLOWING ERROR MESSAGES WERE RECEIVED FOR *operation* ON *data-set-name*

DSNP010I END OF ERROR MESSAGES.
CONNECTION-ID=xxxxxxx,
CORRELATION-ID=yyyyyyyyyyy,
LUW-ID=*logical-unit-of-work-id*=token

Explanation: Messages DSNP009I and DSNP010I enclose a block of messages that are received by the

data space manager (DSM) subcomponent of DB2 in response to an access method services (AMS) operation.

operation

The access method services operation that was being performed.

data-set-name

The data set on which the operation was being performed.

The prefix of the messages in the block is usually IDC (access method services messages). However, the prefix can also be IKJ (dynamic allocation) or other system subcomponent IDs. Refer to the appropriate MVS publication for descriptions of the enclosed messages.

The operation can be DEFINE CLUSTER, ALTER ADDVOLUMES, ALTER REMOVEVOLUMES, or DELETE CLUSTER. One or more other DSM messages follow this message to explain what happened as a result of the failure of this access method services request. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

System Action: Operation continues.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Use this information to help resolve problems indicated by other DSM messages that follow this one.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP011I *csect* – **MEDIA MANAGER SERVICES ERROR FOR** *data-set-name*.
MMRC=cccccccc DSMRC=ffffff
CONNECTION-ID=xxxxxxx,
CORRELATION-ID=yyyyyyyyyyy,
LUW-ID=logical-unit-of-work-id =token

Explanation: The MMRC is the return code that DB2 received from media manager services. Refer to the appropriate MVS publication for a description of these codes. DSMRC is a DSM reason code that indicates which of the media manager services functions, update or extend, failed. (See Part 4, "Section 4. DB2 Codes," on page 773.) The message is from CSECT 'DSNPmmmm' of the data space manager (DSM). The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

System Action: The DSM terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: DSM messages are directed to either the database administrator (DBA) or the system administrator. However, they can request that the operator issue an MVS WRITELOG operator command (for example, 'W A') to obtain MVS SYSLOG output. The SYSLOG sometimes contains media manager messages that might be helpful to the DBA or system administrator in determining why space could not be allocated.

System Programmer Response: This message might be preceded by one or more IEC or ICY messages on the console or in SYSLOG. These messages help to determine what happened and what action to take.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP012I *csect* – **ERROR IN ICF CATALOG LOCATE FUNCTION FOR** *data-set-name*
CTLGRC=cc CTLGRSN=zzzzrrrr
CONNECTION-ID=xxxxxxx,
CORRELATION-ID=yyyyyyyyyyy,
LUW-ID=logical-unit-of-work-id=token

Explanation: CTLGRC and CTLGRSN are the return and reason codes that DB2 received from the SVC 26

(ICF catalog locate function). The reason code is in the same format as that returned to DB2 by the SVC 26. In it, zzzz is the hexadecimal value of the last two characters of the SVC 26 CSECT that set the code. The full CSECT name is derived by appending these two characters to 'IGG0CL'; rrrr is the numeric part of the reason code, in hexadecimal.

See the description of access method services message IDC3009I in the appropriate MVS publication for explanations of the return code and the numeric portion (rrrr) of the reason code. The values documented there are decimal, whereas the value in this message is hexadecimal.

The connection ID, correlation ID, and LUW-ID identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

An LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a 'logical-unit-of-work-id' that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of 'logical-unit-of-work-id' in any DB2 command that accepts 'logical-unit-of-work-id' as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

System Action: DB2 terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

System Programmer Response: Correct the problem indicated by the catalog return and reason codes.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP013I **INSUFFICIENT PRIMARY ALLOCATION SPACE TO FORMAT CONTROL PAGES IN DATA SET** *data-set-name*
CONNECTION-ID=xxxxxxx,
CORRELATION-ID=yyyyyyyyyyy,
LUW-ID=logical-unit-of-work-id =token

Explanation: Data space manager (DSM) discovered that the primary space quantity given in the data set definition was not large enough. Formatting of required control information in the first several pages was not possible. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

System Action: DSM terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: This should occur only for table spaces or indexes that are not storage group defined. (The DB2 interpreter forces the initial allocation to be large enough if a storage group is used.) Check both the page size specification (4KB or 32KB) and the number of control pages required (2 for table space, 3 for index space). Specify the primary allocation value again so that at least (pages x page size) bytes are allocated.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP014I IRLM MANUAL LOCK REQUEST FAILED FOR *data-set-name*.
RC=rr,SC=ssssssss,
CONNECTION-ID=xxxxxxxx,
CORRELATION-ID=yyyyyyyyyyyyyy,
LUW-ID=logical-unit-of-work-id=token

Explanation: DB2 requested a manual lock on a data set, but the lock could not be obtained for reasons specified in RC and SC. RC and SC are the return code and reason code from IRLM. RC and the first two digits of SC are documented in Part 5, "IRLM messages and codes," on page 1307. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. DSNP001I or DSNP007I follow this message. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

If message DSNT376I was received before message

DSNP014I, the lock request failed because of a timeout condition. Otherwise, refer to the IRLM return and reason codes for an explanation of the failure.

System Action: The current SQL or the unit of recovery that issued the request might be terminated.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the IRLM return and reason code.

Problem Determination: Provide the console sheet and a dump. A GTF trace might also be required. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. Refer to the explanation section of this message for additional problem determination information.

DSNP015I csect – IRLM MANUAL UNLOCK REQUEST FAILED FOR *data-set-name*.
RC=rr,SC=ssssssss,
CONNECTION-ID=xxxxxxxx,
CORRELATION-ID=yyyyyyyyyyyyyy,
LUW-ID=logical-unit-of-work-id=token

Explanation: DB2 requested a manual unlock on a data set, but the unlock could not be performed for reasons specified in RC and SC. RC and SC are the return code and reason code from IRLM. RC and the first two digits of SC are documented in Part 5, "IRLM messages and codes," on page 1307. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

System Action: The current SQL or the unit of recovery that issued the request might be terminated.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the IRLM return and reason code.

Problem Determination: Provide the console sheet and a dump. A GTF trace might also be required. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. See the explanation section of this message for additional problem determination information.

DSNP016I CREATE FAILED FOR *pageset-name*.
RC=rrrrrrr CONNECTION-ID=xxxxxxx,
CORRELATION-ID=yyyyyyyyyyy,
LUW-ID=logical-unit-of-work-id =token

Explanation: Creation of a table space or index space failed in the data space manager (DSM) for the reason given in RC. (See Part 4, "Section 4. DB2 Codes," on page 773.) The *pageset-name* format is 'dbname.tiname.instance', where 'dbname' is the database name and 'tiname' is the table space or index space name.

This message identifies the function that was in progress at the time of a failure. The specific failure is usually identified by a preceding message. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

System Action: DSM terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by reason code and preceding messages, and correct it, if possible.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP017I RESET FAILED FOR *pageset-name*.
RC=rrrrrrr CONNECTION-ID=xxxxxxx,
CORRELATION-ID=yyyyyyyyyyy,
LUW-ID=logical-unit-of-work-id =token

Explanation: Reset failed in the data space manager (DSM) subcomponent of DB2 for a table space or index space for the reason given in RC. (See Part 4, "Section 4. DB2 Codes," on page 773.) The '*pageset-name*' format is 'dbname.tiname', where 'dbname' is the database name and 'tiname' is the table space or index space name.

This message identifies the function that was in progress at the time of a failure. The specific failure is usually identified by a preceding message. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

System Action: DSM terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the reason code and preceding messages, and correct it, if possible.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP018I DROP FAILED FOR *pageset-name*.
RC=rrrrrrr CONNECTION-ID=xxxxxxx,
CORRELATION-ID=yyyyyyyyyyy,
LUW-ID=logical-unit-of-work-id =token

Explanation: Drop failed in the data space manager (DSM) subcomponent of DB2 for a table space or index space for the reason given in RC. Refer to Part 4, "Section 4. DB2 Codes," on page 773. The '*pageset-name*' format is 'dbname.tiname', where 'dbname' is the database name and 'tiname' is the table

space or index space name. This message identifies the function that was in progress at the time of a failure. The specific failure is usually identified by a preceding message. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

System Action: DSM terminates its actions associated with the current SQL request. Higher level functions might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: Investigate the problem indicated by the reason code and preceding messages, and correct it, if possible.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP019I *csect* – **REALLOCATE FAILED FOR**
data-set-name. RC=rrrrrrrr
CONNECTION-ID=xxxxxxx,
CORRELATION-ID=yyyyyyyyyy,
LUW-ID=logical-unit-of-work-id =token

Explanation: After a successful ALTER REMOVEVOLUMES request, the data space manager (DSM) subcomponent of DB2 was unable to reallocate the data set for the reason indicated by RC. (See Part 4, "Section 4. DB2 Codes," on page 773.) The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages

and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

System Action: Operation continues.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console.

System Programmer Response: The data set and corresponding page set piece or partition can usually continue to be used by the DB2 subsystem. However, they should be stopped and restarted at the earliest possible time in order to synchronize the allocation control blocks with the integrated catalog facility (ICF) catalog volume list.

Problem Determination: See Problem Determination for message DSNP001I for this information.

DSNP020I *csect-name* - **USER DEFINED**
ATTRIBUTES INCORRECT FOR
data-set-name. RC=rrrrrrrr
CONNECTION-ID=xxxxxxx,
CORRELATION-ID=yyyyyyyy,
LUW-ID=logical-unit-of-work-id =token

Explanation: The specified data set was access method services user-defined and does not have the required DB2 attributes. The connection ID, correlation ID, and LUW-ID identify the user or application that encountered the problem.

The value of the LUWID is a 'logical-unit-of-work-id' that is assigned to the thread, followed by an '=' sign and a token value, which can be used in place of 'logical-unit-of-work-id' in any DB2 command that accepts 'logical-unit-of-work-id' as input.

Messages having the same connection ID, correlation ID, and LUWID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

This message is issued by the following CSECTs:
 DSNPATS0 DSNPSC0 DSNPSC0 DSNPRNM0

Severity: 8 (error)

System Action: No action is taken with the named data set. An error code is returned and a dump is not taken.

Operator Response: Notify the system programmer.

System Programmer Response: Delete the named data set and define it with the correct attributes.

Problem Determination: Obtain an access method services LISTCAT for the named data set's attributes. Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for the correct data set definition attributes.

DSNP021I *csect-name* **EXTEND NOTIFY FAILED FOR** *data-set-name*, **SC=ssssssss**, **NOTESC=nnnnnnnn**, **CONNECTION-ID=xxxxxxx**, **CORRELATION-ID=yyyyyyyyyyyy**, **LUW-ID=logical-unit-of-work-id=token**

Explanation: This is an internal error. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

An LUW-ID of '*' indicates that the thread does not have an LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of the logical-unit-of-work-id in any DB2 command that accepts the logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

If message DSNT376I was received before message DSNP021I, the notify request failed because of a timeout condition.

System Action: The current SQL statement or the unit of recovery that issued the request might be terminated.

Problem Determination: Obtain the console sheet and a dump. A GTF trace might also be required.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNP022I *csect-name* **EXTEND DBET RECORDING FAILED FOR** *data-set-name*, **RC=rrrrrrr**, **SC=ssssssss**, **DBETSC=nnnnnnnn**, **CONNECTION-ID=xxxxxxx**, **CORRELATION-ID=yyyyyyyyyyyy**, **LUW-ID=logical-unit-of-work-id=token**

Explanation: This is an internal error. The connection ID, correlation ID, and logical-unit-of-work ID (LUW-ID) identify the user or application that encountered the problem.

An LUW-ID of '*' indicates that the thread does not have an LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of the logical-unit-of-work-id in any DB2 command that accepts the logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation

IDs beginning with '0nn', where 'nn' is a number, identify system agents.

System Action: The current SQL statement or the unit of recovery that issued the request might be terminated.

Problem Determination: Obtain the console sheet and a dump. A GTF trace might also be required.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNP026I *csect-name* **DATASET IS NOT ALLOWED TO BE DELETED** *data-set-name*, **RC=rrrrrrr**, **CONNECTION-ID=xxxxxxx**, **CORRELATION-ID=yyyyyyyyyyyy**, **LUW-ID=logical-unit-of-work-id=token**

Explanation: During clean up of the shadow data set in the final step of online REORG, an error is detected due to an attempt to delete a regular table or index space data set. Refer to Part 2 of *DB2 SQL Reference* for information about online REORG. The connection ID, correlation ID, and logical unit of work ID (LUWID) identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

The value of the LUWID is assigned to the thread followed by an '=' sign and a token value, that can be used in place of the LUWID in any DB2 command that accepts it as input.

Messages that have the same connection ID, correlation ID, and LUWID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

System Action: No action is taken with the named data set. An error code is returned and a dump is not taken.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error in the online REORG of utility. See the 'Problem Determination' section of message DSNP001I for this information.

DSNP027I *csect-name* **RENAME FAILED OLD DATASET=***data-set-name*, **NEW DATASET=***data-set-name*, **RC=rrrrrrr**, **CONNECTION-ID=xxxxxxx**, **CORRELATION-ID=yyyyyyyyyyyy**, **LUW-ID=logical-unit-of-work-id=token**

Explanation: An attempt to alter the data set name failed. The connection ID, correlation ID, and logical unit of work ID (LUWID) identify the user or application that

encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

The value of the LUWID is assigned to the thread followed by an '=' sign and a token value, that can be used in place of the LUWID in any DB2 command that accepts it as input.

Messages that have the same connection ID, correlation ID, and LUWID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

Severity: 8 (error)

System Action: DB2 terminates its actions associated with the current SQL request. DB2 might terminate the current SQL request or the unit of recovery that issued the request.

Operator Response: This message is directed to the database administrator or the system administrator. Bring it to that person's attention if it appears on the MVS operator's console. The installation should consider directing DB2 messages to a console other than the operator's console.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See 'Problem Determination' for message DSNP0011 for this information.

DSNP028I *csect-name* **HSM RECALL FAILED FOR DSNAME = *dsn***
HSMRC=rrrrrrr,HSMRSN=sssssss
CONNECTION ID=xxxxxxx,
CORRELATION ID=yyyyyyyyyyy,
LUW-ID=logical-unit-of-work-id =token

Explanation: This message indicates that a required data set was migrated by HSM and an attempt to recall the data set failed, preventing DB2 from accessing the data set. The HSMRC and HSMRSN fields can be used to determine the HSM failure. See Problem Determination below. The connection ID, correlation ID, and 'logical-unit-of-work ID' (LUW-ID) identify the user or application that encountered the problem.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a 'logical-unit-of-work-id' that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of 'logical-unit-of-work-id' in any DB2 command that accepts 'logical-unit-of-work-id' as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

System Action: DSM terminates its action with the

associated data set. Higher level functions that issued the recall request might terminate.

Operator Response: Notify the system programmer.

System Programmer Response: Investigate the reason for the HSM recall failure. Use the information in this message to help resolve this problem. Additional messages on the MVS operator's console might be associated with this message.

Problem Determination: If the HSMRSN is 999, refer to the following list for the explanation:

HSMRC Description

- 4** HSM is not active.
- 8** No storage is available for MWE in CSA.
- 36** Input MWE is not within user storage.
- 40** Allocated amount of CSA for MWEs was exceeded.
- 100** There was an invalid function used.

For all other reason codes (HSMRSN), refer to the z/OS *DFSMSHsm Managing Your Own Data* for an explanation of HSM user messages. The HSM user messages can be determined by appending the value in the HSMRC field of this message to ARC1100I (that is, HSMRC=12, HSM message is ARC112I). The HSMRSN reason code is referenced in the ARC1100I messages.

DSNP030I *csect-name* **THE CURRENT EXTENT REACHES THE LAST VOLUME FOR *data-set-name*. CONNECTION-ID=xxxxxxx, CORRELATION-ID=yyyyyyyyyyy, LUW-ID=logical-unit-of-work-id=token**

Explanation: This message indicates that the last volume to which the data set *data-set-name* can extend has been reached. You cannot add more volumes if the current volume runs out of space.

The connection, correlation, and logical-unit-of-work IDs identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a 'logical-unit-of-work-id' that is assigned to the thread followed by an '=' sign and a *token* value, which can be used in place of *logical-unit-of-work-id* in any DB2 command that accepts *logical-unit-of-work-id* as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

Severity: 0 (informational)

System Action: If sufficient space in current volume is available for the current request, DB2 continues.

DSNP031I

Otherwise, message DSNP007I is issued, and the current SQL request fails.

Operator Response: For more information, issue an MVS WRITELOG operator command (for example, 'W A') to obtain MVS SYSLOG output. The SYSLOG sometimes contains VSAM or media manager messages that might be helpful in determining why space could not be allocated.

System Programmer Response: Depending on what information is available in the access method services or VSAM messages preceding this one, try one of the following:

- If you do not anticipate further extension of this table space or index, ignore the message.
- If the table space or index is backed by SMS-managed data sets, use LISTCAT to choose another SMS storage group that has more space available and recover or reorganize the table space or index into the new SMS storage group.
- If the table space or index is DB2-managed but is not SMS-managed, rearrange the DB2 storage group volume list by shifting volumes with free space or by adding new volumes. Use the SQL statements ALTER STOGROUP ADD VOLUMES and ALTER STOGROUP REMOVE VOLUMES and then recover or reorganize the table space or index.
- If the table space or index is user-managed and not SMS-managed, delete and redefine the data set with more space and then recover or reorganize the table space or index.

Problem Determination: Obtain an access method services LISTCAT for the named data set's VOLUME list for current extent space distribution of volumes.

See the Problem Determination section of message DSNP001I for more information.

DSNP031I *csect-name* **CURRENT SPACE HAS** *cc*
EXTENTS FOR *data-set-name*. **THE**
MAXIMUM EXTENTS WITH DFSMS *vv,rr*
IS *mm*. **CONNECTION-ID=xxxxxxx,**
CORRELATION-ID=yyyyyyyyyyy,
LUW-ID=logical-unit-of-work-id=token

Explanation: This message indicates that data set *data-set-name* has almost reached the maximum number of extents. The maximum number is indicated by *mm*. You cannot add more volumes if the current volume runs out of space.

The current version and release of DFSMS are indicated by *vv* and *rr*.

The connection, correlation, and logical-unit-of-work IDs identify the user or application that encountered the problem. Correlation IDs beginning with '0nn', where 'nn' is a number, identify system agents.

A LUW-ID of '*' indicates that the thread does not have

a LUW-ID. If the LUW-ID is not an '*', the value is a *logical-unit-of-work-id* that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Messages that have the same connection ID, correlation ID, and LUW-ID relate to the same user. This makes it possible to scan a number of DSNP-prefixed messages and group activities involving a given user.

Severity: 0 (informational)

System Action: DB2 continues. If the table space or index space is not able to extend when needed, Message DSNP007I is issued and the current SQL request fails.

Operator Response: For more information, issue an MVS WRITELOG operator command (for example, 'W A') to obtain MVS SYSLOG output. The SYSLOG sometimes contains VSAM or media manager messages that might be helpful in determining why space could not be allocated.

System Programmer Response: Based on the information that might be available in the access method services or VSAM messages preceding this one, try one of the following actions:

- If you do not anticipate further extension of this table space or index, ignore the message.
- If the table space or index is DB2-managed and has not yet reached the maximum number of extents, obtain an access method services LISTCAT for the named data set's to see how the extensions are distributed. Your options then include:
 - If there are multiple small extents, you can use the SQL statement ALTER TABLESPACE SECQTY to alter to a larger secondary space allocation quantity.
 - Otherwise, use the ALTER STOGROUP statement to add volumes to the storage group (up to 133 of them).
- If the table space or index is user-managed and has not yet reached the maximum number of extents, issue the access method services command ALTER ADDVOLUMES to provide additional volumes (up to 59 of them).
- If the data set is at the maximum number of extents, recover or reorganize the table space or index into a data set or data sets having larger primary and secondary values. This process is discussed in Part 2 (Volume 1) of *DB2 Administration Guide*.

Problem Determination: Obtain an access method services LISTCAT for the named data set's VOLUME list for the extent space distribution.

See the Problem Determination section of message DSNP001I for more information.

Chapter 16. DSNQ... messages

DSNQ001I MQListener was invoked with no major function on the command line.

Explanation: The MQListener command line failed to specify a major function, such as help, run, add, remove, or show.

Severity: 8 (Error)

User Response: Consult MQListener documentation and re-run MQListener with the function that was intended. For more information, run:

- db2mqIn1/db2mqIn2 help

DSNQ002I MQListener was invoked with an unknown command line parameter *parameter name*.

Explanation: The MQListener command line contained an unknown parameter *parameter name*.

Severity: 8 (Error)

User Response: Consult MQListener documentation and re-run MQListener with the desired parameters. For more information, run

- db2mqIn1/db2mqIn2 help

DSNQ003I MQListener was invoked without the required command line parameter *parameter name*.

Explanation: The MQListener command line was missing the parameter *parameter name*, which was required.

Severity: 8 (Error)

User Response: Consult MQListener documentation and re-run MQListener with the parameter that was required. For more information, run

- db2mqIn1/db2mqIn2 help

DSNQ004I MQListener was invoked with an illegal value for the *parameter name* command line parameter: *parameter value*.

Explanation: The MQListener command line contained an illegal value for the *parameter name* parameter. The illegal value was *parameter value*.

Severity: 8 (Error)

User Response: Consult MQListener documentation and re-run MQListener with the desired parameters. For more information, run

- db2mqIn1/db2mqIn2 help

DSNQ010I MQListener encountered a database error accessing subsystem *subsystem name* during operation *operation name*: sqlstate = *sqlstate value* (sqlcode = *sqlcode value*).

Explanation: MQListener encountered a DB2 database error accessing subsystem *subsystem name* while executing operation *operation name*. The resulting sqlstate was *sqlstate value* (sqlcode *sqlcode value*).

Severity: 8 (Error)

User Response: Consult MQListener documentation and ensure that MQListener is properly installed in the specified DB2 subsystem and access to MQListener packages and configuration tables has been granted to the user running MQListener.

DSNQ011I MQListener failed to make RRS connection to the subsystem *subsystem name* during operation *operation name*: reason code = *reason code value* (return code = *return code value*).

Explanation: MQListener encountered a DB2 database error while attempting to connect to subsystem *subsystem name* during operation *operation name*. The resulting reason code was *reason code value* (return code *return code value*).

Severity: 8 (Error)

User Response: Ensure that the DB2 subsystem *subsystem name* is active and running.

DSNQ012I MQListener failed to terminate RRS connection from the subsystem *subsystem name* during operation *operation name*: reason code = *reason code value* (return code = *return code value*).

Explanation: MQListener encountered a DB2 database error while attempting to disconnect from subsystem *subsystem name* during operation *operation name*. The resulting reason code was *reason code value* (return code *return code value*).

Severity: 4 (Warning)

User Response: Ensure that the DB2 subsystem *subsystem name* is active and running. Consult the DB2 documentation, regarding the exact meaning of the reason and return code.

DSNQ020I MQListener encountered a MQ error error executing operation *operation name* on object *object name* in queue manager *queue manager name*: reason code = *reason code value*.

Explanation: MQListener encountered a MQ error error while executing operation *operation name* on object *object name* in queue manager *queue manager name*. The resulting reason code was *reason code value*.

Severity: 8 (Error)

User Response: Ensure that MQSeries is properly installed and configured, and accessible to the user running MQListener. Consult the MQSeries documentation for more information, particularly the Application Programming Reference for more information about the reason code.

DSNQ021I MQListener failed to connect to MQ queue manager *queue manager name*: reason code = *reason code value*.

Explanation: MQListener encountered a MQ error error while attempting to connect to MQ queue manager *queue manager name*. The resulting reason code was *reason code value*.

Severity: 8 (Error)

User Response: Ensure that MQSeries is properly installed and configured, and accessible to the user running MQListener. Consult the MQSeries documentation for more information, particularly the Application Programming Reference for more information about the reason code.

DSNQ022I MQListener failed to disconnect from MQ queue manager *queue manager name*: reason code = *reason code value*.

Explanation: MQListener encountered a MQ error error while attempting to disconnect from MQ queue manager *queue manager name*. The resulting reason code was *reason code value*.

Severity: 4 (Warning)

User Response: Ensure that MQSeries is properly installed and running. Consult the MQSeries documentation for more information, particularly the Application Programming Reference for more information about the reason code.

DSNQ030I MQListener encountered a DB2 database error attempting to add a new task to the MQListener configuration *configuration name* in the subsystem *subsystem name*. The input queue specified in the task was *input queue name* and the specified queue manager was *queue manager name*. The resulting sqlstate was *sqlstate value* (*sqlcode* = *sqlcode value*).

Explanation: MQListener encountered a DB2 database error while attempting to add a new task to the MQListener configuration *configuration name* in the subsystem *subsystem name*. The input queue specified in the task was *input queue name* and the specified queue manager was *queue manager name*. The resulting sqlstate was *sqlstate value* (*sqlcode* = *sqlcode value*).

Severity: 8 (Error)

User Response: Consult MQListener documentation and ensure that MQListener is properly installed in the specified subsystem and access to MQListener packages and configuration tables has been granted to the user running MQListener. Ensure that the combination of configuration name, input queue, and queue manager is unique among the MQListener configuration tasks in the subsystem. Use MQListener "show" command to inspect the configuration.

DSNQ040I MQListener encountered a DB2 database error retrieving configuration *configuration name* from subsystem *subsystem name* during operation *operation name*. The resulting sqlstate was *sqlstate value* (*sqlcode* = *sqlcode value*).

Explanation: MQListener encountered a DB2 database error while retrieving configuration *configuration name* from subsystem *subsystem name* during operation *operation name*. The resulting sqlstate was *sqlstate value* (*sqlcode*= *sqlcode value*).

Severity: 8 (Error)

User Response: Consult MQListener documentation and ensure that MQListener is properly installed in the specified subsystem and access to MQListener packages and configuration tables has been granted to the user running MQListener.

DSNQ060I MQListener encountered a DB2 database error while removing a task from configuration *configuration name* in subsystem *subsystem name*. The input queue specified was *input queue name* and the queue manager specified was *queue manager name*. The resulting sqlstate was *sqlstate value* (*sqlcode = sqlcode value*).

Explanation: MQListener encountered a DB2 database error while removing a task from configuration *configuration name* in subsystem *subsystem name*. The input queue that was specified was *input queue name*, and the queue manager that was specified was *queue manager name*. The resulting sqlstate was *sqlstate value* (*sqlcode = sqlcode value*).

Severity: 8 (Error)

User Response: Consult MQListener documentation and ensure that MQListener is properly installed in the specified subsystem. Also, ensure that access to MQListener packages and configuration tables has been granted to the user who is running MQListener.

DSNQ070I MQListener has encountered a DB2 database error preparing to run the stored procedure *schema name.procedure name* in subsystem *subsystem name*: *sqlstate = sqlstate value* (*sqlcode = sqlcode value*).

Explanation: MQListener has encountered a DB2 database error while preparing to run the stored procedure *schema name.procedure name* in subsystem *subsystem name*. The resulting sqlstate was *sqlstate value* (*sqlcode = sqlcode value*).

Severity: 8 (Error)

User Response: Ensure that MQListener configuration is correctly specified and that a stored procedure of the specified schema and name exists with a correct signature and is accessible to the user running MQListener.

DSNQ071I MQListener encountered an unsupported datatype in the signature of the stored procedure *schema name.procedure name* in the subsystem *subsystem name*: *datatype = datatype value*.

Explanation: MQListener encountered an unsupported datatype in the signature of the stored procedure *schema name.procedure name* in the subsystem *subsystem name*. The datatype was *datatype value*.

Severity: 8 (Error)

User Response: Consult the MQListener documentation and ensure that the stored procedure has the correct datatype.

DSNQ072I MQListener was unable to start a thread running a task specified in the configuration *configuration name* by the input queue *input queue name* and queue manager *queue manager name*. The ECF error code was *error code value*.

Explanation: MQListener was unable to start a thread running a task that was specified in the configuration *configuration name* by the input queue *input queue name* and queue manager *queue manager name*. The ECF error code was *error code value*.

Severity: 8 (Error)

User Response: Ensure that MQListener configuration is correct, especially the `-numInstances` parameter, and that the MQListener process has sufficient system resources to execute the required number of simultaneous tasks.

DSNQ073I MQListener started a thread running the task specified in the configuration *configuration name* by the input queue *input queue name* and queue manager *queue manager name*.

Explanation: MQListener started a thread running the task that was specified in the configuration *configuration name* by the input queue *input queue name* and queue manager *queue manager name*.

Severity: 0 (Informational)

User Response: None. This is the formal notification of a thread start, expected during startup or restart.

DSNQ074I A thread running the task specified in the configuration *configuration name* by the input queue *input queue name* and queue manager *queue manager name* has exited.

Explanation: A thread running the task specified in the configuration *configuration name* by the input queue *input queue name* and queue manager *queue manager name* has exited.

Severity: 0 (Informational)

User Response: None. This is the formal notification of a thread exit, expected during shutdown or restart.

DSNQ075I MQListener encountered a DB2 database error while running the stored procedure *schema name.procedure name* in subsystem *subsystem name* during operation *operation name*. The resulting sqlstate was *sqlstate value* (*sqlcode = sqlcode value*).

Explanation: MQListener encountered a DB2 database error while running the stored procedure *schema name.procedure name* in subsystem *subsystem name* during operation *operation name*. The resulting sqlstate was *sqlstate value* (*sqlcode = sqlcode value*).

Severity: 8 (Error)

User Response: Consult MQListener documentation and ensure that MQListener is properly installed in the specified subsystem and access to MQListener packages and configuration tables has been granted to the user running MQListener. Ensure that the stored procedure executes correctly.

DSNQ081I MQListener received a shutdown message on admin queue *admin queue name*, queue manager *queue manager name*.

Explanation: MQListener received a shutdown message on admin queue *admin queue name*, queue

manager *queue manager name*.

Severity: 0 (Informational)

User Response: None. This is a formal notification on receiving a shutdown message.

DSNQ082I MQListener received a restart message on admin queue *admin queue name*, queue manager *queue manager name*.

Explanation: MQListener received a restart message on admin queue *admin queue name*, queue manager *queue manager name*.

Severity: 0 (Informational)

User Response: None. This is a formal notification on receiving a restart message.

Chapter 17. DSNR... Messages

The following information messages indicate the progress of DB2 through a restart process.

DSNR001I RESTART INITIATED

Explanation: This message delimits the beginning of the restart process within startup. The phases of restart are about to begin. These phases are necessary to restore the operational environment to that which existed at the time of the previous termination and to perform any recovery actions that may be necessary to return DB2-managed resources to a consistent state.

DSNR002I RESTART COMPLETED

Explanation: This message delimits the completion of the restart process within startup.

DSNR003I RESTART...PRIOR CHECKPOINT RBA=xxxxxxxxxxxx

Explanation: The message indicates the first phase of the restart process is in progress and identifies (as 'xxxxxxxxxxxx') the log positioning RBA of the checkpoint from which the restart process will obtain its initial recovery information.

DSNR004I RESTART...UR STATUS COUNTS IN COMMIT=nnnn, INDOUBT=nnnn, INFLIGHT=nnnn, IN ABORT=nnnn, POSTPONED ABORT=nnnn

Explanation: This message indicates the completion of the first phase of the restart process. The counts indicate the number of units of work whose execution state during a previous DB2 termination was such that (to ensure DB2 resource consistency) some recovery action must be performed during this restart process or (by the user) upon completion of the restart process. The counts of IN COMMIT, INDOUBT, INFLIGHT and IN ABORT may provide an indication of the time required to perform the remaining two phases of restart (forward and backward recovery). The counts of POSTPONED ABORT URs may provide an indication of the time required to perform -RECOVER POSTPONED processing.

The IN COMMIT count specifies the number that had started but not completed phase 2 of the commit process. These must undergo forward recovery to complete the commit process.

The INDOUBT count specifies the number that were interrupted between phase 1 and phase 2 of the commit process. These must undergo forward recovery to ensure resources modified by them are unavailable until their indoubt status is resolved.

The INFLIGHT count specifies the number that neither completed phase 1 of the commit process nor began the process of backing out. These must undergo backward recovery to restore resources modified by them to their previous consistent state.

The IN ABORT count specifies the number that were in the process of backing out. These must undergo backward recovery to restore resources modified by them to their previous consistent state.

The POSTPONED ABORT count specifies the number whose backout was postponed in an earlier restart process and not attended to prior to this restart process. These must undergo backward recovery after completion of restart, via the -RECOVER POSTPONED command, to restore resources modified by them to their previous consistent state.

This message is issued by the following CSECT:
DSNRRCSR

DSNR005I RESTART...COUNTS AFTER FORWARD RECOVERY IN COMMIT=nnnn, INDOUBT=nnnn

Explanation: The message indicates the completion of the forward recovery restart phase. The counts indicate the number of units of work whose recovery actions could not be completed during the phase. Typically, those in an IN COMMIT state remain because the recovery actions of some subcomponents have not been completed. Those units of work in an INDOUBT state will remain until connection is made with the subsystem that acts as their commit coordinator.

Operator Response: No action is required unless the conditions persist beyond some installation-defined period of time. Recovery action will be initiated when the resource is brought online. Indoubt resolution will be initiated as part of the process of reconnecting the subsystems.

DSNR006I RESTART...COUNTS AFTER BACKWARD RECOVERY INFLIGHT=nnnn, IN ABORT=nnnn, POSTPONED ABORT=nnnn

Explanation: The message indicates the completion of the backward recovery restart phase. The counts indicate the number of units of work whose recovery actions could not be completed during the phase.

When INFLIGHT or IN ABORT URs do not complete backout during restart, they are converted to POSTPONED ABORT status, so the INFLIGHT and IN

DSNR007I • DSNR009I

ABORT counts should be zero. The POSTPONED ABORT count indicates the number of URs for which backout work still exists (from this or a previous restart).

Backout work for the POSTPONED ABORT URs should be completed by the user (via the -RECOVER POSTPONED command), once DB2 restart has completed.

This message is issued by the following CSECT:
DSNRRAUB

Operator Response: No action is required unless the condition persists beyond some installation-defined period of time. Recovery action will be initiated when the resource collection is brought online.

DSNR007I RESTART...STATUS TABLE

Explanation: This message precedes a table showing the status of units of recovery (URs) after each restart phase. The message and the table will accompany the DSNR004I, DSNR005I, or DSNR006I message after each nested phase. At the end of the current status rebuild phase, it shows the status of any URs that require processing. At the end of the forward recovery and backoutphases, it shows the status of only those URs which needed processing but were not processed. The table helps to identify the URs that were active when DB2 came down, and to determine the log scope required to bring DB2 up.

The format of the table is shown below:

```
T CONID CORRID AUTHORIZATION ID PLAN S URID DAY TIME
```

where the columns contain the following information:

T Connection type. The values may be:

- B** Batch: a batch program or QMF user.
- I** Internal: a system service being performed on some user's behalf.
- S** Subsystem: work that originated from an attached subsystem, either CICS or IMS/VS.

CONID Connection identifier for related URs. Batch connections are not related to any other connection. Subsystem connections with the same identifier indicate URs that originated from the same subsystem.

CORRID Correlation identifier; unique within a subsystem connection, it relates a UR to a particular CICS or IMS/VS transaction.

AUTHORIZATION ID Authorization identifier of the user for whom this UR was created.

PLAN Name of the plan allocated to the UR.

S Restart status of the UR. When DB2 came down, the UR was in one of these situations:

A INABORT: The UR was in the 'must-complete' phase of abort, and is yet to be completed.

C INCOMMIT: The UR was in the 'must-complete' phase of commit, and is yet to be completed.

D INDOUBT: The UR had completed the first phase of commit, but DB2 had not received the second phase instruction. The UR must be remembered so it can be resolved when the owning subsystem reattaches.

F INFLIGHT: The UR had not completed the first phase of commit, and will be backed out.

P POSTPONED ABORT: The UR has not yet completed backout. Backout must be completed outside of DB2 restart by means of the -RECOVER POSTPONED command.

URID UR identifier, the log RBA of the beginning of this unit of work. It is the earliest RBA required to process the UR during Restart.

DAY The day the UR was created, in the format 'ddd'. It is approximately the time of the first SQL statement of the application or the first SQL statement following a commit point.

TIME The time the UR was created, in the format 'hh mm ss '. It is approximately the time of the first SQL statement of the application or the first SQL statement following a commit point.

This message is issued by the following CSECT:
DSNRUDIS

DSNR009I STORAGE IS NOT AVAILABLE FOR THE UR DISPLAY TABLE, THE SIZE REQUESTED = xxxx, STORAGE MANAGER REASON CODE = yyyyyyyy

Explanation: There was not enough storage available during the creation of the recoverable UR (RURE) display table (DSNDRUDT).

System Action: The system continues to restart but the RESTART... STATUS TABLE is not displayed.

System Programmer Response: Increase the region size of the *ssnmMSTR* address space before restarting DB2 again.

Operator Response: Save the console output and inform the system programmer.

Problem Determination: The size requested is approximately 110 bytes for each unit of recovery (UR). See the message DSNR004I to determine the total number of URs to process. Then get the 00E2xxxx

reason code from the DSNR009I header. Use these two numbers to determine the reason for the shortage.

DSNR010I AN ERROR OCCURRED IN THE RURE STATUS TABLE SORT/TRANSLATE MODULE (DSNRUSOR), THE ERROR LOCATION CODE = xxxx

Explanation: There was an error in processing the RURE display table. One of these ERROR LOCATION CODES tells what function the module was attempting to perform:

- X'0001' Trace entry to the module
- X'0002' Sort the recoverable UR display table
- X'0003' Translate the recoverable UR table
- X'0004' Convert the store clock value for display
- X'0005' Trace exit from the module

System Action: The system continues to restart but the RESTART... STATUS TABLE is not displayed.

System Programmer Response: Use the error code in the message to fill in the problem description.

Operator Response: Save the console output and inform the system programmer.

Problem Determination: The ERROR CODE tells the problem area and should be used in the problem description. A record was added to the SYS1.LOGREC that contains the PSW and module at the time of the error. This error indicates an application program check of some type.

DSNR011I AN ERROR OCCURRED IN THE RURE STATUS TABLE DISPLAY MODULE (DSNRUDIS), THE ERROR LOCATION CODE = xxxx

Explanation: There was an error in processing the RURE display table. One of these ERROR LOCATION CODES tells what function the module was attempting to perform:

- X'0001' Trace entry to the module
- X'0002' Build header for the display table
- X'0003' Build entries for the display table
- X'0004' Call DSNRWTO to display the table
- X'0005' Trace exit from the module
- X'0006' Get message text

System Action: The system continues to restart but the RESTART... STATUS TABLE is not displayed.

System Programmer Response: Use the error code in the message to fill in the problem description.

Operator Response: Save the console output and inform the system programmer.

Problem Determination: The ERROR CODE describes the problem area and should be used in the problem description. A record was added to the SYS1.LOGREC containing the value DSNRUDIS, and the PSW and CSECT at the time of the error. This error indicates an application program check of some type.

Error codes other than X'0006' indicate an application program check of some type. Code X'0006' indicates an error attempting to locate the table text. The trace entry for DSNRUDIS contains the return and reason codes from the Get Text request. That information should be used to fill in the problem description.

DSNR014I EXCLUDED RURE TABLE

Explanation: This is a list of RUREs which are being bypassed because of the conditional restart. Either they were to be processed in a phase that was bypassed or they were outside the log range.

The following shows the format of the table headings. See message DSNR007I for an explanation of the table columns.

```
T CONID CORRID AUTHORIZATION ID PLAN S URID DAY TIME
```

System Action: Restart continues.

DSNR015I THE CHKPTRBA xxxxxxxxxxxx SPECIFIED IN THE CRCR IS INVALID

Explanation: The checkpoint RBA specified in the conditional restart control record (CRCR) is either not available or is not a begin checkpoint record.

System Action: Restart is abended with reason code '00D99001'.

Operator Response: Inform the system programmer.

System Programmer Response: By specifying the STARTRBA and/or ENDRBA on the CRESTART control statement, change log inventory (DSNJU003) utility selects an appropriate RBA.

Problem Determination: Print the complete checkpoint records queue by using the print log map (DSNJU004) utility. Select a checkpoint RBA from this queue or let the change log inventory (DSNJU003) utility make the selection.

DSNR016I STARTRBA xxxxxxxxxxxx VALIDATION FAILED

Explanation: A scan from the STARTRBA failed to find a complete log record. Either the entire log was scanned and no complete record was found, or the log manager found an invalid log record. The log manager sends the error messages to the console indicating a bad log record.

System Action: Restart abends.

Operator Response: Record the log manager message numbers and inform the system programmer.

System Programmer Response: Use DSN1LOGP to determine a STARTRBA to use for restart. The recovery manager uses the STARTRBA as a starting point for its search of the beginning of a valid log record.

**DSNR017I RESTART IS BEING TERMINATED
BECAUSE OF CSRONLY
SPECIFICATION IN CRCR**

Explanation: The restart procedure only completed the first phase of startup. The status displayed during this partial restart can be used to build the conditional restart control record (CRCR).

System Action: Restart is abended.

System Programmer Response: To prevent the restart control record from being reused during the next restart attempt, the current restart control record must be canceled. Use the change log inventory (DSNJU003) CRESTART CANCEL option, or create a new restart control record. The newly created restart control record will automatically cancel the previous record.

**DSNR018I csect-name RESTART...BACKWARD
RECOVERY PROCESSED FROM RBA
ffffffff TO RBA tttttttttt**

Explanation: This message indicates the range of log processed during the backward phase of RESTART when postponed backout processing has been requested. Processing began with the LR of RBA *ffffffff* and proceeded backwards to the LR of RBA *tttttttttt*.

System Action: This message is followed by messages DSNR006I and DSNR007I. The former tells how many URs had some backout work postponed. The latter, identifies the postponed abort URs. The amount of log that need to be processed to complete backout processing for the postponed abort URs can be gauged by comparing the RBA reached during RESTART's backward processing (RBA *tttttttttt*), and the URIDs of the postponed abort URs.

**DSNR020I csect-name START MEMBER member,
OR REPLY 'NO' OR 'QUIESCED'**

Explanation: During a group restart, the group member issuing this message attempted to access the BSDS for member *member*, and either was not able to access the BSDS, or discovered that the BSDS was modified by the change log inventory (DSNJU003) utility since that member was last started. In either case, this DB2 is not able to perform peer restart for member *member*.

For group restart to continue, the identified member must be started.

If it is not possible to start the other member and you want to terminate this group restart, you can reply 'NO' to this message. Replying 'NO' to this message causes this DB2 to terminate with a reason code of 00D900E1. You then have to reply 'NO' to this message for all remaining members participating in this group restart.

If you are sure that the identified member was quiesced the last time it was started, that is, it was stopped with a

-STOP DB2 MODE(QUIESCE) command and it stopped with no indoubt units of recovery and no distributed resynchronization responsibility, then you can reply 'QUIESCED' to this message. Replying 'QUIESCED' to this message causes message DSNR030I to be issued as a reminder that group restart will continue **without using the log** from the identified member.

System Action: This group member waits for the identified member to be started or for a valid reply to this message.

- If the identified member is started, group restart continues.
- If the reply is 'NO', this DB2 terminates with a reason code of 00D900E1.
- If the reply is 'QUIESCED', group restart continues **without using the log** from the identified member.

**DSNR021I csect-name DB2 SUBSYSTEM MUST
PERFORM GROUP RESTART FOR
PEER MEMBERS**

Explanation: This DB2 subsystem must perform the group restart phase to recover either the shared communications area (SCA) or the retained locks for nonstarting members in the data sharing group.

This message marks the beginning of group restart processing for peer members. Messages DSNR023I and DSNR024I or messages DSNR025I and DSNR026I are issued for each peer that is processed by this DB2 subsystem. Message DSNR022I marks the end of group restart processing for peer members.

This message is issued before this DB2 member enters the group restart process. The group restart process is synchronized among all group members that are starting and therefore participating in this group restart. After this DB2 member synchronizes with other members, it is possible that no peer processing will be necessary; in that case message DSNR022I immediately follows this message.

If it is necessary to recover both the SCA and retained locks, this message is issued twice; once for SCA recovery and again for the recovery of the retained locks.

System Action: The subsystem begins group restart processing.

**DSNR022I csect-name DB2 SUBSYSTEM HAS
COMPLETED GROUP RESTART FOR
PEER MEMBERS**

Explanation: This DB2 subsystem, which previously issued message DSNR021I, completed the group restart phase to recover the shared communications area (SCA) or retained locks for nonstarting DB2 members in the data sharing group.

System Action: The subsystem continues with the next restart phase of its own subsystem.

DSNR023I *csect-name* **GROUP RESTART INITIATED TO RECOVER THE SCA FOR GROUP MEMBER *memname***

Explanation: The DB2 subsystem that issued this message is performing the group restart phase to recover the shared communications area (SCA) for nonstarting member *memname* of the data sharing group.

This message is followed by message DSNR024I after the group restart phase to recover the SCA for the identified member is complete.

System Action: The subsystem continues the group restart process.

DSNR024I *csect-name* **GROUP RESTART COMPLETED TO RECOVER THE SCA FOR GROUP MEMBER *memname***

Explanation: The DB2 subsystem that issued this message completed the group restart phase to recover the shared communications area (SCA) for member *memname* of the data sharing group.

This message is issued only if messages DSNR021I and DSNR023I were issued.

System Action: The subsystem continues the group restart process.

DSNR025I *csect-name* **GROUP RESTART INITIATED TO RECOVER RETAINED LOCKS FOR GROUP MEMBER *memname***

Explanation: The DB2 subsystem that issued this message is performing the group restart phase to recover the retained locks for nonstarting member *memname* of the data sharing group.

This message is followed by message DSNR026I after the group restart phase to recover the retained locks for the identified member is complete.

System Action: The subsystem continues the group restart process.

DSNR026I *csect-name* **GROUP RESTART COMPLETED TO RECOVER RETAINED LOCKS FOR GROUP MEMBER *memname***

Explanation: The DB2 subsystem that issued this message completed the group restart phase to recover the retained locks for member *memname* of the data sharing group.

This message is issued only if messages DSNR021I and DSNR025I were issued.

System Action: The subsystem continues the group restart process.

DSNR030I *csect-name* **WILL CONTINUE WITHOUT THE *member* MEMBER'S LOG, REPLY 'YES' OR 'NO'**

Explanation: The reply to message DSNR020I was 'QUIESCED'. This message is issued as a reminder that group restart will continue **without using the log** from the identified member.

If you are sure that the identified member was quiesced the last time it was started, that is, it was stopped with a -STOP DB2 MODE(QUIESCE) command and it stopped with no indoubt units of recovery and no distributed resynchronization responsibility, then reply 'YES'; otherwise, reply 'NO'.

System Action: This group member waits for a valid reply to this message.

- If the reply is 'YES', group restart continues **without using the log** from the identified member.
- If the reply is 'NO', message DSNR020I is reissued to allow you to enter a different response.

DSNR031I *csect-name* **PROCESSING LOG RECORD AT RBA *rba1* TO RBA *rba2***

Explanation: This message is produced periodically during the forward and backward processing phases of restart. The RBAs presented in this message can be used to monitor the progress of the phases of restart.

Forward processing occurs between messages DSNR004I and DSNR005I. During forward processing, the log is read in a forward direction.

Backward processing occurs between messages DSNR005I and DSNR006I. During backward processing, the log is read in a backward direction and will stop reading at the RBA matching the URID of the oldest in-flight or in-abort UR.

rba1 is the RBA of the log record currently being processed. *rba2* is the RBA of the last log record that will be read in this phase of restart.

System Action: DB2 restart continues.

User Response: This is an information only message.

DSNR032E *csect-name* **DB2 IS STARTING AT RELEASE LEVEL *code-level-1*, WHICH IS NOT COMPATIBLE WITH RELEASE LEVEL *code-level-2***

Explanation: The DB2 you tried to start is not at the proper code release, or does not have the correct fallback/coexistence SPE applied.

code-level-1 and *code-level-2* are a string of three numeric characters as follows:

- Version
- Release
- Modification level

code-level-1

The current release level of the starting DB2.

code-level-2

One of the following:

- In non-data-sharing, the highest release with which this DB2 has ever been started.
- In a data sharing environment, the highest release with which any DB2 in the data sharing group has ever been started. This is known as the *group release level*.

This message can occur in the following situations:

- The starting DB2 fell back from a later release and does not have the proper fallback SPE applied.
- The starting DB2 does not have the proper coexistence SPE to start in a data sharing group, which is at the higher release level.
- The starting DB2 is at a release in which coexistence with the current group release level is not supported.

System Action: DB2 terminates with reason code 00D900FA.

System Programmer Response: Verify that:

- Coexistence is supported between the releases you are trying to run.
- The startup procedure is pointing to the correct set of load libraries.
- The correct SPE has been applied.

For more information about what SPE is needed, see the program directory or preventative service planning (PSP) updates.

DSNR033E *csect-name* **MEMBER** *member-name* **IS AT RELEASE LEVEL** *code-level-1* **WHICH IS NOT COMPATIBLE WITH THE STARTING MEMBER AT RELEASE LEVEL** *code-level-2*

Explanation: The code level for the started DB2 member and the starting DB2 member are not compatible until you apply the correct SPE to the lower level release.

code-level-1 and *code-level-2* are a string of three numeric characters as follows:

- Version
- Release
- Modification level

code-level-1

The release level of the active DB2 member *member-name*.

code-level-2

The release level of the starting DB2.

This message occurs when a starting DB2 member is at a higher release than can coexist with an existing DB2 member.

System Action: After detecting the first member with which it cannot coexist, DB2 terminates with reason code 00D900FA.

System Programmer Response: If you want to start a higher release level of DB2, you must ensure that all active members in the group have the proper SPE applied. If you intended to start a lower release level of DB2, make sure your startup procedure is pointing to the correct set of load libraries.

For more information about what SPE is needed, see the program directory or preventative service planning (PSP) updates.

DSNR034E *csect-name* **THERE CANNOT BE MORE THAN TWO RELEASE LEVELS OF DB2 RUNNING IN THE GROUP**

Explanation: You attempted to start a DB2 that was at a release level that cannot coexist in the data sharing group. There are already two different releases of DB2 currently running in the data sharing group.

System Action: DB2 terminates.

System Programmer Response: If you are sure that the startup procedure is pointing to the correct set of load libraries, you must stop any DB2 subsystems that cannot coexist with the one you are attempting to start.

See *DB2 Data Sharing: Planning and Administration* for more information about release coexistence in a data sharing group.

DSNR035I *csect-name* **WARNING - UNCOMMITTED UR AFTER** *nn* **CHECKPOINTS - CORRELATION NAME =** *xxxxxxxxxxxx* **CONNECTION ID =** *yyyyyyy* **LUWID =** *logical-unit-of-work-id=token* **PLAN NAME =** *xxxxxxx* **AUTHID =** *xxxxxxx* **END USER ID =** *xxxxxxx* **TRANSACTION NAME =** *xxxxxxx* **WORKSTATION NAME =** *xxxxxxx*

Explanation: This message indicates that during checkpoint, DB2 encountered an uncommitted UR that has an INFLIGHT status.

The value *nn* is cumulative, and it indicates the number of checkpoints taken since the beginning of the UR. CORRELATION name, CONNECTION ID, and LUWID together identify a thread associated with the UR. If the LUWID is an '*', it indicates that the thread originated at this site. *token* is a unique token number associated with the LUWID. PLAN NAME and AUTHID further identify the thread associated with the UR. If the thread was created with client End User information, the End User's ID, TRANSACTION NAME, and WORKSTATION NAME will be displayed. Otherwise, these fields will contain an '*'.

System Action: DB2 continues processing. If statistics class 3 is turned on, IFCID 0313 is written.

System Programmer Response: Consult with the application programmer to determine if this is a problem UR. See Part 4 (Volume 1) of *DB2 Administration Guide* for more information about problems caused by uncommitted URs. If the UR is caused by an application program, you can use CANCEL THREAD to delete the UR, if necessary. If an uncommitted UR is deleted, DB2 will undo the changes. The amount of time required for this process depends on the amount of work done by the UR.

Programmer Response: Ensure that the application commits frequently enough, or consult with your DB2 administrator about decreasing the frequency of the check.

DSNR036I *csect-name* **UNRESOLVED UR ENCOUNTERED DURING CHECKPOINT - CORRELATION NAME = xxxxxxxxxxxx CONNECTION ID = yyyyyyyy LUWID = logical-unit-of-work-id PLAN NAME = xxxxxxxx AUTHID = xxxxxxxx**

Explanation: DB2 has detected an INDOUBT unit of recovery (UR) during a checkpoint. The purpose of this message is to remind the operator that an INDOUBT UR or POSTPONED ABORT UR exists.

CORRELATION name, CONNECTION ID, and LUWID together identify a thread associated with the UR. If the LUWID is an '*', it indicates that the thread originated at this site. PLAN NAME and AUTHID further identify the thread associated with the indoubt UR.

System Action: DB2 continues processing. If statistics class 3 is turned on, IFCID 0313 is written.

System Programmer Response: Consult with the application programmer to determine whether this is a problem UR. See Part 4 (Volume 1) of *DB2 Administration Guide* for more information about resolving INDOUBT URs.

DSNR037I *csect-name* **WARNING - THE TCP/IP DRDA PORT NUMBER IS CHANGED FROM port_1 TO port_2**

Explanation: The TCP/IP DRDA port number specified in the DB2 BSDS is different from the value used the last time a member of the DB2 data sharing group started. All members of a DB2 data sharing group must use the same TCP/IP DRDA port number.

port_1 The TCP/IP DRDA port number that was obtained from the DB2 BSDS during DB2 startup.

port_2 The TCP/IP DRDA port number that was obtained from the coupling facility during DB2 startup. This is the TCP/IP DRDA port number that was used the last time a member of the data sharing group was started.

System Action: DB2 accepts the new TCP/IP DRDA

port number, and DB2 startup continues.

Operator Response: Contact the system programmer.

System Programmer Response: If the TCP/IP DRDA port number was changed inadvertently, stop DB2 immediately. Use the change log inventory utility (DSNJU003) to correct the PORT value, and restart DB2.

If this message reflects a change that you want to make to DB2's DRDA port number, no action is required. The DRDA port number stored in the coupling facility is updated, and this new port number will be used when DB2 validates each member's DRDA port number.

DSNR038I *csect-name* **WARNING - THE TCP/IP RESYNCHRONIZATION PORT NUMBER IS CHANGED FROM port_1 TO port_2**

Explanation: The TCP/IP resynchronization port number obtained from the DDF record of the BSDS is different than the value specified the last time DB2 started.

Changing the TCP/IP resynchronization port number can cause problems during distributed 2-phase commit processing. Remote DRDA partners record DB2's resynchronization port number in their recovery logs. The resynchronization port number is used to reconnect to the appropriate DB2 member when communication failures occur during 2-phase commit processing. If a DB2 member changes its resynchronization port number, the remote DRDA partners may be unable to resolve indoubt units of work.

port_1 The TCP/IP resynchronization port number that was obtained from the DB2 BSDS during DB2 startup.

port_2 The TCP/IP resynchronization port number that was obtained from the coupling facility during DB2 startup. This is the TCP/IP resynchronization port number that was used the last time this member was started.

System Action: DB2 accepts the new TCP/IP resynchronization port number, and DB2 startup continues.

Operator Response: Contact the system programmer.

System Programmer Response: If the DB2 resynchronization port number was changed inadvertently, stop DB2 immediately. Use the change log inventory utility (DSNJU003) to correct the RESPORT value, and restart DB2.

If this message reflects a change that you want to make to DB2's resynchronization port number, no action is required. The resynchronization port number stored in the coupling facility for this member is updated, and this new port number will be used when DB2 validates the resynchronization port number for other DB2 members.

DSNR039I *csect-name* **WARNING - TCP/IP RESYNCHRONIZATION PORT NUMBER *port_1* IS THE SAME AS MEMBER *member_name***

Explanation: The TCP/IP resynchronization port of the starting DB2 is the same as the member indicated by *member_name*.

port_1 The TCP/IP resynchronization port number that was obtained from the DB2 BSDS during DB2 startup.

member_name
The member name of the DB2 data sharing member that used the same resynchronization port number.

System Action: The TCP/IP port number specified in the BSDS is accepted, and DB2 startup continues.

Operator Response: Contact the system programmer.

System Programmer Response: Each member of the DB2 data sharing group should have a unique TCP/IP resynchronization port number. Use the change log inventory utility (DSNJU003) to specify a unique RESPORT value for this DB2 member and the DB2 member identified by *member_name*.

DSNR040I *csect-name* **TRACKER RESTART ENDLRSN *Irsn* DOES NOT MATCH ENDLRSN *Irsn* ASSOCIATED WITH THE DATA SHARING GROUP**

Explanation: In a data sharing environment, a TRKRSITE DB2 will not restart if it detects inconsistencies in the reported values for ENDLRSN. The ENDLRSN specified on the Conditional Restart Control Record does not match the ENDLRSN in the system communications area (SCA) structure for the data sharing group.

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump, and contact the system programmer.

System Programmer Response: If the ENDLRSN value for this member is incorrect, take the following actions:

- Restore the BSDS and Logs for this Tracker DB2 from the primary DB2
- Ensure the Conditional Restart Control Record is correct
- Restart DB2

If the ENDLRSN value in the SCA is incorrect, delete the SCA structure and restart all members of the TRKRSITE data sharing group with the same ENDLRSN.

DSNR042I *csect-name* **WARNING - UR ROLLBACK HAS BEEN CANCELED AND IS INCOMPLETE FOR CORRELATION NAME = *corrid* CONNECTION ID = *connid* AUTHID = *authid* PLAN NAME = *plan-name* URID = *urid***

Explanation: DB2 issues this message when rollback for the indicated thread has been canceled by either the CANCEL THREAD NOBACKOUT command or the RECOVER POSTPONED CANCEL command.

System Action: Rollback processing for the thread stops and the unit of recovery is logged as canceled and complete.

User Response: Examine the console for messages indicating what objects are being marked as REFP,RECP; those objects will need to be recovered.

DSNR043E *csect-name* **DB2 IS STARTING WITH AN UNSUPPORTED CODE LEVEL. CURRENT LEVEL: *current-code-level* VALID LEVEL(S): *valid-code-levels***

Explanation: The DB2 that is starting is not at the proper code level. Some required maintenance, such as a fallback or coexistence SPE, has not been applied. The level information is different for each SPE level and each release. This information is for the use of your IBM service representative.

This message can occur in the following situations:

- The DB2 that is starting has completed a fallback from a later release and does not have the proper fallback SPE applied.
- The DB2 that is starting does not have the proper coexistence SPE to start in a data sharing group, which is at a later release level.
- The DB2 that is starting is not at a release level that supports coexistence with the data sharing group.

System Action: DB2 terminates with reason code 00D900FA.

Operator Response: Save the console output and inform the system programmer.

System Programmer Response: Check the DB2 Program Directory and Preventive Service Planning updates (PSP) to determine what SPE you need.

Verify that:

- Coexistence is supported between the releases you are trying to run.
- The DB2 startup procedure points to the correct set of load libraries.
- The correct SPE has been applied.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 16, 69.

DSNR044E *csect-name* **MEMBER *member-name* IS STARTED AT A LEVEL OF CODE *started-code-level* WHICH IS NOT COMPATIBLE WITH THE STARTING MEMBER. VALID LEVEL(S) *valid-code-levels***

Explanation: The code levels are not compatible between the DB2 member that has already started and the DB2 member that is starting. You need to apply the correct SPE to the DB2 member that is at the earlier level.

The level information is different for each SPE level and each release. This information is for the use of your IBM service representative.

This message occurs when a starting DB2 member is at a later release level that cannot coexist with an existing DB2 member.

System Action: After detecting the first member with which it cannot coexist, DB2 terminates with reason code 00D900FA.

Operator Response: Save the console output and inform the system programmer.

System Programmer Response: Check the Program Directory and Preventive Service Planning updates (PSP) to ensure that all active members in the group have the proper SPE applied.

Verify that:

- Coexistence is supported between the releases you are trying to run.
- The DB2 startup procedure points to the correct set of load libraries.
- The correct SPE has been applied.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 16, 69.

DSNR045I *csect-name* **DB2 SUBSYSTEM IS STARTING AND IT WAS NOT STARTED IN A PREVIOUS RELEASE WITH THE FALLBACK SPE APPLIED. FALLBACK SPE APAR: *apar-number* NEW RELEASE LEVEL: *release* KNOWN LEVEL(S): *level***

Explanation: DB2 was not started with the FALLBACK SPE active before an attempt was made to start DB2 in a new release. The FALLBACK SPE must be applied, and the system must be started before DB2 can be started in a new release.

release level

The release and level are different for each release, and are for the use of the IBM service representative.

apar-number

The apar-number is the FALLBACK SPE that is missing.

System Action: DB2 terminates with reason code 00D96001.

User Response: Ensure that the FALLBACK SPE is applied, and DB2 is started before starting DB2 in a new release.

DSNR046I *csect-name* **INCOMPLETE UNITS OF RECOVERY EXIST FOR *subsys***

Explanation: This message is issued during DB2 shutdown if any incomplete units of recovery exist for the referenced member of a data sharing group. The message indicates that retained locks will be held by subsystem *subsys*.

System Action: DB2 shutdown continues normally.

User Response: Restart DB2 and resolve the incomplete units of recovery to release the retained locks held by subsystem *subsys*.

DSNR047I *csect-name* **POSTPONED ABORT BACKOUT PROCESSING LOG RECORD AT RBA *rba1* TO RBA *rba2***

Explanation: This message is produced periodically during the backout processing of postponed abort units of recovery, initiated by the -RECOVER POSTPONED command. The RBAs in this message can be used to monitor the backout progress.

During the backout process, DB2 reads the log in a backward direction and stops reading the log at the RBA matching the URID of the oldest postponed-abort UR *rba2*. *rba1* is the RBA of the log record currently being processed.

System Action: Backout processing continues.

System Programmer Response: This is an information-only message. If the message continues to be issued and *rba1* remains the same, make sure there are no outstanding archive tape mounts that may be delaying the log read process. Otherwise, obtain a dump of the DB2 address spaces for problem determination.

The -DISPLAY THREAD TYPE(POSTPONED) command can be issued to display information about the postponed abort units of recovery. It is also possible to stop the backout process with the -RECOVER POSTPONED CANCEL command, but this will leave objects in an inconsistent state. See the *DB2 Command Reference* for more information regarding the CANCEL option of the -RECOVER POSTPONED command.

DSNR048I *csect-name* **UR BACKOUT
PROCESSING LOG RECORD AT RBA
rba1 TO RBA rba2 FOR CORRELATION
NAME = xxxxxxxxxxxx CONNECTION
ID = yyyyyyyy LUWID =
logical-unit-of-work-ID=token PLAN
NAME = xxxxxxxx AUTHID = xxxxxxxx
END USER ID = xxxxxxxx
TRANSACTION NAME = xxxxxxxx
WORKSTATION NAME = xxxxxxxx**

Explanation: This message is produced periodically during the backout process of an in-abort unit of recovery. The RBAs in this message can be used to monitor the backout progress. Together, CORRELATION name, CONNECTION ID, and LUWID identify a thread associated with the UR. If the LUWID is '*', the thread originated at this site. *token* is a unique token number associated with the LUWID. PLAN NAME and AUTHID further identify the thread associated with the UR. If the thread was created with client end user information, the end user's USERID, TRANSACTION NAME, and WORKSTATION NAME are displayed. Otherwise, these fields contain an '*'.

During the backout process, DB2 reads the log in a backward direction and stops reading the log at the RBA matching the URID of the in-abort UR *rba2*. *rba1* is the RBA of the log record currently being processed.

System Action: Backout processing continues.

System Programmer Response: This is an information-only message. If the message continues to be issued and *rba1* remains the same, make sure there are no outstanding archive tape mounts that might be delaying the log read process. Otherwise, obtain a dump of the DB2 address spaces for problem determination.

It might be possible to stop the backout process with the NOBACKOUT option of the -CANCEL THREAD command, but this leaves objects in an inconsistent state. See the *DB2 Command Reference* for more information regarding the NOBACKOUT option of the -CANCEL THREAD command.

DSNR050I *csect-name* **DB2 STARTED IN SYSTEM
RECOVER PENDING MODE**

Explanation: DB2 has started in System Recover Pending mode in preparation for the RESTORE SYSTEM utility. No database update activity is allowed, and DB2 is in restricted access mode.

System Action: DB2 startup continues.

DSNR051I *csect-name* **SYSPITR RESTART
ENDLRSN *Irsn* DOES NOT MATCH
ENDLRSN *Irsn* ASSOCIATED WITH THE
DATA SHARING GROUP**

Explanation: For a System Level Recovery restart, all members of the data sharing group must truncate their logs with the same LRSN value that was specified in the SYSPITR conditional restart parameter.

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump, and contact the system programmer.

System Programmer Response: Ensure that the conditional restart control record is correct, and then restart DB2. You can run the Print Log Map utility (DSNJU004) to examine the current conditional restart record.

DSNR052I *csect-name* **DB2 MEMBER TO REMAIN
ACTIVE IN LIGHT MODE TO RESOLVE
INDOUBT UNITS OF RECOVERY**

Explanation: This message is issued at the end of restart when the DB2 member has been restarted with the LIGHT(YES) parameter and there are indoubt units of recovery (URs).

System Action: The DB2 member remains up and running in light mode. This DB2 member will only allow connections for the purpose of resolving the indoubt URs. Also, certain commands are allowed. Any attempt to connect to this DB2 to submit new SQL work will be disallowed with reason code 00F300A2.

User Response: Ensure that the appropriate commit coordinators are started so that they can resync with the DB2 member to resolve the indoubts. Alternatively the -RECOVER INDOUBT command can be used to manually resolve the indoubts.

DSNR053I *csect-name* **ALL INDOUBT UNITS OF
RECOVERY HAVE BEEN RESOLVED.
LIGHT MODE DB2 NORMAL
TERMINATION TO FOLLOW**

Explanation: This message is issued following DSNR052I after all indoubt units of recovery have been resolved for this DB2 member, which was restarted with the LIGHT(YES) parameter.

System Action: DB2 subsystem shutdown is initiated.

Chapter 18. DSNT... Messages

Messages issued by DSNTINST, DSNTINS1, and DSNTINS2 installation CLISTs have an internal severity level as follows:

- 0 Successful execution: CLIST progress and tracing messages (processing continues)
- 4 Warning: some adjustments might be made by the installation CLISTs (processing and JCL editing continues)
- 8 Error: unable to continue (no JCL is edited)

DSNT101I A VSAM ERROR HAS BEEN ENCOUNTERED WHILE CSECT DSNTSTR2 WAS READING THE DB2 BSDS VSAM RETURN CODE = x, VSAM REASON CODE = y

Explanation: CSECT DSNTSTR2 attempted to read the DB2 bootstrap data set (BSDS), and a VSAM error has occurred. In the message, 'x' is a 1-byte VSAM return code and 'y' is a 1-byte VSAM reason code.

System Action: The start up process continues. However, any references to password-protected system databases will cause a 'resource unavailable' error. Any agent-related requests for subsystem database resources will result in an SQLCODE -904. Any requests that are not agent-related for unavailable resources will result in the following messages:

DSNI001I	DSNI002I	DSNI003I	DSNI004I
DSNI005I	DSNI006I	DSNT408I	DSNT414I
DSNT415I	DSNT416I	DSNT417I	DSNT500I

Abend X'04E' with reason code X'00E30010' is also produced. However, the error results in a retry. DB2 does not terminate, but a dump is produced.

Operator Response: Notify the system programmer.

System Programmer Response: A VSAM error occurred while reading the BSDS record with key '200000001'. Either the BSDS record does not exist or an I/O error occurred (indicating that the record is bad). Further information may be obtained from a VSAM diagnostics manual. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for procedures on recovering or repairing the DB2 bootstrap data set.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 16.

DSNT102I CSECT DSBTSTR2 ENCOUNTERED AN INVALID DATABASE SERVICES BOOTSTRAP RECORD

Explanation: CSECT DSNTSTR2 attempted to read the DB2 bootstrap data set (BSDS), and an invalid

record was read by the recovery log manager (RLM) subcomponent. This is a DB2 error.

System Action: The DB2 start up process continues. However, any references to DB2 password-protected system databases will cause a 'resource unavailable' error. Any agent-related requests for DB2 subsystem database resources will result in an SQLCODE -904. Any requests that are not agent-related for unavailable resources will result in the following messages:

DSNI001I	DSNI002I	DSNI003I	DSNI004I
DSNI005I	DSNI006I	DSNT408I	DSNT414I
DSNT415I	DSNT416I	DSNT417I	DSNT500I

Abend X'04E' with reason code X'00E30010' is also produced. However, the error results in a retry. DB2 does not terminate, but a dump is produced.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This message is generated when the recovery log manager (RLM) subcomponent of DB2 encounters an invalid DB2 database services password record. A copy of the BSDS record with key '200000001', which is the invalid database services record retrieved, should be obtained.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 16.

DSNT103I THE CURRENTLY LOADED DSN6SPRM IS NOT THE MVS/XA VERSION

Explanation: A -START DB2 PARM=xxxxxxx was issued where 'xxxxxxx' is the version of the system parameter CSECTs. DB2 executes in a MVS/XA environment and will not execute in any other environment.

System Action: The message DSNV086E is generated with a reason code of X'00E30008'. DB2 is

DSNT104I • DSNT107I

terminated with abend code X'04F'.

Operator Response: Notify the system programmer.

System Programmer Response: Restart DB2 with a -START DB2 PARM= command, where the parameter block that follows the 'PARM=' parameter specifies an MVS/XA version of the DB2 subsystem parameters.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5, 9.

DSNT104I THE CURRENTLY LOADED DSN6SPRM IS NOT THE MVS/370 VERSION

Explanation: A -START DB2 PARM=xxxxxxx was issued, where 'xxxxxxx' is the version of the system parameter CSECTs. DB2 executes in an MVS/370 environment and does not execute in any other environment.

System Action: Message DSNV086E is generated with reason code X'00E30009'. DB2 is terminated with abend code X'04F'.

Operator Response: Notify the system programmer.

System Programmer Response: Restart DB2 with a -START DB2 PARM= command, where the parameter block that follows the PARM= parameter specifies an MVS/370 version of the DB2 subsystem parameters.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5, 9.

DSNT105I THE LOADED DSN6SPRM CSECT IS OBSOLETE. PLEASE REASSEMBLE THE DSN6SPRM CSECT AND RELINKEDIT THE DSNZPARM LOAD MODULE.

Explanation: DSNTSTR2 loaded an out-of-date system parameter CSECT DSN6SPRM. This error can only occur if code maintenance has been applied and CSECT DSN6SPRM has not been reassembled. This CSECT is contained in the load module specified in the 'PARM=' parameter of the -START DB2 command.

System Action: The message DSNV086E is generated with a reason code of X'00E30008'. DB2 is terminated with abend code X'04F'.

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble DSN6SPRM, and relink-edit the DSNZPARM load module. This is done by resubmitting the install job stream, DSNTIJUZ, that built the load module that is named following the 'PARM=' parameter of the -START DB2 command.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5, 9.

DSNT106I THE LOADED DSN6SYSP CSECT IS OBSOLETE. PLEASE REASSEMBLE THE DSN6SYSP CSECT AND RELINKEDIT THE DSNZPARM LOAD MODULE.

Explanation: DSNTSTR2 loaded an out-of-date system parameter CSECT DSN6SYSP. This error can only occur if code maintenance has been applied and CSECT DSN6SYSP has not been reassembled. This CSECT is contained in the load module specified in the 'PARM=' parameter of the -START DB2 command.

System Action: The message DSNV086E is generated with a reason code of X'00E30008'. DB2 is terminated with abend code X'04F'.

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble DSN6SYSP, and relink-edit the DSNZPARM load module. This is done by resubmitting the install job stream, DSNTIJUZ, that built the load module that is named following the 'PARM=' parameter of the -START DB2 command.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5, 9.

DSNT107I INVALID AMODE OR RMODE ATTRIBUTE FOUND FOR LOAD MODULE *module-name*

Explanation: During DB2 startup, the service controller establishes the addressability to the DB2 database services functional recovery and the emergency shutdown routines. Two load modules, DSNTF, and DSNTLCLE, are loaded into CSA. In the MVS/XA environment, DSNTLCLE must be link-edited with attributes AMODE(24) and RMODE(ANY). At least one of the modules did not have the correct addressing attribute when it was loaded. 'module-name' in the error message is the name of the first load module that has an invalid addressing mode.

System Action: DB2 database services start up is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that all install and maintenance activities against these modules were executed using SMP. Verify that the JCLIN for SMP includes the correct AMODE and RMODE control statements, and that the linkage editor provided with the Data Facility Product (DFP) was invoked by SMP for the link edits. Correct the procedure or JCL which caused the error and rerun the necessary SMP jobs.

Problem Determination: A DB2 dump was requested to an MVS/XA SYS1.DUMP data set.

The MVS service aid AMBLIST provides linkage editor

module attributes in the summary section of the LISTLOAD function output.

DSNT200I *type bind-type* FOR PLAN *plan-id*
SUCCESSFUL

Explanation: A BIND, REBIND or FREE PLAN subcommand has completed successfully.

type Indicates that a test bind was in progress. A test bind means that no plan name was specified. The token is omitted if a normal BIND PLAN was processed.

bind-type
Type of bind subcommand: BIND, REBIND, or FREE.

plan-id Name of application plan specified in the subcommand.

System Action: The plan was successfully bound, rebound, or freed.

DSNT201I *type bind-type* FOR PLAN *plan-id* NOT
SUCCESSFUL

Explanation: Errors have been detected during the processing of the indicated BIND, REBIND, or FREE PLAN subcommand.

type Indicates that a test bind was in progress. A test bind means that no plan name was specified. The token is omitted if a normal BIND PLAN was processed.

bind-type
Type of bind subcommand: BIND, REBIND, or FREE.

plan-id Name of application plan specified in the subcommand.

System Action: The BIND, REBIND, or FREE PLAN was not performed.

System Programmer Response: See other messages issued to determine the error that caused the bind subcommand to terminate unsuccessfully.

DSNT202I MESSAGE LIMIT EXCEEDED

Explanation: A fixed amount of space exists in which to generate bind subcommand messages. This message says that the bind subcommand generated more messages than will fit in that space.

System Action: For bind subcommands that affect a single plan, the bind subcommand process continues. However, no other messages are generated except for message DSNT200I or DSNT201I. For bind subcommands that affect more than one plan, the bind subcommand process terminates and no other messages are generated.

System Programmer Response: The 'FLAG'

parameter of the bind subcommand can be used to limit the types of messages that are generated.

DSNT205I *name* IS A DUPLICATE *name-type*, IT
WILL BE USED ONLY ONCE

Explanation: Name 'name' has been specified more than once in a list of names.

name Name that was specified more than once.

name-type
Indicates the type of list in which the name was duplicated.

- MEMBER NAME - List of DBRM Members
- PLAN-ID - List of plan IDs
- SYSTEM NAME - List of system connection names on a DISABLE or ENABLE list.
- PACKAGE NAME - List of package IDs

System Action: Duplicates are removed from 'name-type' list and the bind process continues.

System Programmer Response: Verify the list that contains the duplicate. If the error is only in entering a name incorrectly, which happens to duplicate another entry, enter the name correctly and reissue the bind statement. If the entry is really a duplicate, no action is required.

**DSNT207I PROGRAM *program-name* WITH MARK
release-dependency-mark FAILED
BECAUSE IT DEPENDS ON
FUNCTIONS OF THE RELEASE FROM
WHICH FALL BACK HAS OCCURRED**

Explanation: Program 'program-name' depends on a function of DB2 that is not supported by the current active release.

program-name
Name of the application program.

release-dependency-mark
A one-character mark showing the oldest DB2 release supporting this program.

This message is issued by the following CSECTs:
DSNTBCM1, DSNTBCM2

System Action: The bind operation for this plan or package is not performed.

User Response: The program cannot be used until the DB2 subsystem is remigrated to the newer release. Notify the system programmer.

System Programmer Response: Warn users not to use plans or packages containing this program until the DB2 subsystem has been remigrated to the newer release.

DSNT208I PROGRAM *program-name*
**PRECOMPILED WITH INCORRECT
 LEVEL FOR THIS RELEASE**

Explanation: Program 'program-name' was precompiled under a release not supported by the current level of DB2, or the contents of the DBRM have been modified after the precompilation phase.

System Action: The BIND operation was not performed.

User Response: Precompile the named program again using the current precompiler. Reissue the BIND command.

Problem Determination: If the application program was precompiled at an appropriate release, and the problem persists, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 79, 80, 81.

DSNT209I *bind-type* FOR PLAN *plan-id* WITH
**MARK *release-dependency-mark* FAILED
 BECAUSE PLAN DEPENDS ON
 FUNCTIONS OF THE RELEASE FROM
 WHICH FALL BACK HAS OCCURRED.**

Explanation: Plan 'plan-id' depends on a function of DB2 which is not supported by the currently active release.

bind-type
 REBIND

plan-id Name of the application plan

release-dependency-mark
 A one-character mark showing the oldest release of DB2 which can support this plan. The release dependency mark for the plan is kept in the IBMREQD columns in the DB2 catalog in SYSIBM.SYSPLAN.

System Action: The REBIND operation for this plan is not performed.

User Response: The plan cannot be used until the DB2 subsystem is remigrated to the newer release.

Operator Response: Notify the system programmer.

System Programmer Response: Warn users not to use the plan until the DB2 subsystem has been remigrated to the newer release.

DSNT210I *bind-type* AUTHORIZATION ERROR
**USING *authorization-id* AUTHORITY
 PLAN=*plan-id* PRIVILEGE=*privilege***

Explanation: The indicated authorization ID does not have the indicated privilege and therefore cannot invoke the indicated BIND subcommand against the indicated application plan.

bind-type
 Type of BIND subcommand: BIND, REBIND, FREE.

authorization ID
 Authorization ID of the plan owner.

plan-id Application plan specified in the BIND subcommand.

privilege
 Missing privilege: BIND, BINDADD

System Action: The BIND, REBIND, or FREE operation for 'plan-id' is not performed.

System Programmer Response: If the indicated privilege is BINDADD, then the privilege to invoke the BIND subcommand with the ACTION(ADD) option must be granted to the indicated authorization ID. If the indicated privilege is BIND, the privilege to invoke a BIND subcommand against the indicated application plan must be granted to the indicated authorization ID.

DSNT211I REBIND FOR PLAN *plan-id* FAILED
**BECAUSE IBMREQD OF *ibmreqd* IS
 INVALID**

Explanation: The IBMREQD column of the SYSIBM.SYSPLAN catalog table for the named plan contains an unrecognizable character.

System Action: The REBIND operation for the plan was not performed.

System Programmer Response: You must do a BIND ACTION(REPLACE) for this plan.

DSNT212I *bind-type* AUTHORIZATION ID *auth-id* IN
THE OWNER KEYWORD IS INVALID

Explanation: The authorization ID specified in the OWNER keyword of the BIND or REBIND subcommand is invalid. To specify an OWNER that is not the primary authorization ID, or one of the secondary IDs of the process requires additional authority. See *DB2 Command Reference* for the authority required.

bind-type
 Type of bind subcommand: BIND or REBIND

auth-id The authorization ID specified as owner.

System Action: The BIND or REBIND subcommand is not executed.

System Programmer Response: Rerun the subcommand and specify a valid authorization ID for the OWNER keyword. You may need to add the required authorization ID for this user to the security system.

DSNT213I THE DCB BLOCK SIZE OF THE INPUT DBRM LIBRARY IS INVALID

Explanation: An invalid DCB block size is specified for the DBRM library of the BIND subcommand.

System Programmer Response: Correct the DCB block size of the DBRM library, and reissue the BIND subcommand.

DSNT214I I/O ERROR ON DBRM LIBRARY DBRM MEMBER= *dbrm-name* DBRM LIBRARY= *dbrm-pds-name xxxxxx*

Explanation: An I/O error was encountered attempting to read database request module (DBRM) during a BIND subcommand. 'xxxxxx' is a portion of the message text generated by the SYNADAF macro instruction to describe the permanent I/O error. This text may contain information such as jobname, stepname, unit address, device type, ddname, operation attempted, and error description.

dbrm-name

Name of the DBRM associated with the error.

dbrm-pds-name

Partitioned data set associated with the error.

System Action: No application plan is created.

System Programmer Response: Determine if an incorrect dbrm-pds-name was specified in the LIBRARY parameter of the BIND subcommand, or an incorrect data set name was specified for the DBRMLIB DD statement. Check correctly specified data sets for I/O errors or modified DCB attributes.

DSNT220I BIND ADD ERROR USING *auth-id* AUTHORITY PLAN *plan-id* ALREADY EXISTS

Explanation: An attempt was made to use the BIND subcommand with the 'ACTION(ADD)' option that specified a 'plan-id' that already exists.

auth-id Authorization ID of the owner of the plan.

plan-id Application plan specified in the BIND subcommand.

System Action: No application plan is created.

System Programmer Response: Check the SYSIBM.SYSPLAN catalog table for names of existing application plans. Reinvoke the BIND subcommand with a 'plan-id' that is not in use.

DSNT221I *bind-type* ERROR USING *auth-id* AUTHORITY PLAN *plan-id* DOES NOT EXIST

Explanation: The indicated bind subcommand was issued against an application plan that does not exist. The individual variable fields contain:

bind-type

Type of bind subcommand: REBIND or FREE.

auth-id Authorization ID of the plan owner.

plan-id Application plan specified in the BIND subcommand.

System Programmer Response: Check the SYSPLAN catalog table for the correct 'plan-id' to use.

DSNT223I *csect-name bind-type* WARNING FOR *object-type* = *object-name* USE OF OPTHINT IS DISALLOWED BY A DB2 SUBSYSTEM PARAMETER. THE DEFAULT OPTHINT VALUE IS USED.

Explanation: The DB2 subsystem parameters have not been configured to enable the use of OPTHINT in the *bind-type* subcommand. The default OPTHINT value of all blanks is used.

bind-type

Type of BIND subcommand: BIND or REBIND.

object-type

PLAN or PACKAGE

object-name

If *object-type* is PLAN, *object-name* is the name of the plan.

If *object-type* is PACKAGE, *object-name* is the name of the package in the format 'location-id.collection-id.package-id'.

System Action: Processing continues normally using the default OPTHINT value.

System Programmer Response: Enable the use of OPTHINT by changing the value of OPTIMIZATION HINTS on the DB2 Installation panel, DSNTIP4.

If, after further consideration, you do not want to use OPTHINT, remove OPTHINT from the *bind-type* subcommand or set the value to all blanks.

DSNT224I *csect-name bind-type* ERROR FOR *object-type object-name* CCSID = *ccsid* IS INVALID FOR ENCODING SCHEME = *scheme*

Explanation: The system does not have a valid CCSID defined for the specified encoding scheme, or the specified CCSID is not defined on the system.

bind-type

Type of bind subcommand: BIND or REBIND.

object-type

PLAN or PACKAGE.

object-name

If *object-type* is PLAN, *object-name* is the name of the application. Otherwise, it is the name of the package in 'location.collection.package' format.

scheme

The encoding scheme specified in the ENCODING bind option on the subcommand or defaulted from the system default Application Encoding Scheme. If *scheme* is UNKNOWN, then the CCSID value specified in the ENCODING bind option or defaulted from the system default Application Encoding Scheme is not defined, and therefore the encoding scheme is not known.

ccsid The numeric CCSID corresponding to the specified *ccsid-type*.

Severity: 8 (error)

System Action: The *bind-type* operation is not performed

User Response: Verify that the correct encoding scheme was specified in the ENCODING bind option on the *bind-type* subcommand. If correct, see System Programmer Response and contact the System Programmer. If incorrect, specify the correct scheme in the ENCODING option and reissue the *bind-type* subcommand.

System Programmer Response: If the bind option ENCODING was not specified, and instead the value for ENCODING was defaulted from the system default Application Encoding Scheme, verify the Application Encoding Scheme is set to a defined CCSID.

If the value specified for the ENCODING option was ASCII, EBCDIC or UNICODE, verify the corresponding CODED CHAR SET subsystem parameter on the installation panel DSNTIPF has been set to a defined CCSID.

Otherwise, inform the user of the correct CCSID. Refer to Appendix A of *DB2 Installation Guide* for more information regarding CCSIDs and character sets.

DSNT228I BIND ERROR, ATTEMPTING TO REPLACE PACKAGE = *package_name* WITH VERSION = (*version2*) BUT THIS VERSION ALREADY EXISTS

Explanation: An attempt is made to create a version of a package that already exists. The version specified in the REPLVER keyword is different from the version specified for the precompile. The version specified for the precompile already exists in the catalog. The combination of 'location.collection.package.version' must be unique in the SYSIBM.SYSPACKAGE catalog table. A common mistake is that the user may believe that the version he is creating is the one specified in the REPLVER keyword. This is not the case. The version specified in the REPLVER keyword is the name of the version being replaced. The version that will be created is the version that was given to the program when it was precompiled.

package_name

Fully qualified package name

version2

Version-id of package that is to be created

System Action: The bind will fail.

System Programmer Response: There are two approaches to solve this problem. The first is to re-compile the program with a new version name and re-issue the original BIND subcommand. The other approach is not to do the precompile but re-issue the BIND subcommand without the REPLVER parameter.

DSNT229I BIND ERROR, ATTEMPTING TO REPLACE PACKAGE = *package-name* THERE ARE ENABLE OR DISABLE ENTRIES CURRENTLY ASSOCIATED WITH THE PACKAGE

Explanation: The BIND subcommand was issued to replace a package that has ENABLE or DISABLE entries currently associated with the package. The individual variable fields contain:

package-name

Name of the package
(location.collection.package)

System Action: Package not bound.

System Programmer Response: FREE the package first and then BIND the package.

DSNT230I BIND DBRM MEMBER NAME ERROR USING *auth-id* AUTHORITY *object-type* = *object-name* MEMBER *dbrm-name* NOT FOUND IN PDS SEARCH ORDER

Explanation: The indicated 'dbrm-name' was not found in the search order in the PDSs specified on the BIND PLAN or BIND PACKAGE subcommand.

auth-id Authorization ID of the plan or package owner

object-type

The type of object being bound: PLAN or PACKAGE

object-name

If 'object-type' is PLAN, 'object-name' is the name of the application plan. Otherwise, it is the name of the package in 'location.collection.package' format.

dbrm-name

Member name of the DBRM that was not found.

System Action: The bind is unsuccessful.

System Programmer Response: Determine if an incorrect 'dbrm-member-name' or PDS was specified. Reinvoke the BIND subcommand specifying the correct names.

DSNT231I BIND DBRM ERROR USING *auth-id* AUTHORITY *object-type* = *object-name* DBRM *dbrm-name* IS IN AN INCONSISTENT STATE

Explanation: The contents of a DBRM have been modified after the precompilation process, or the DBRM contains incorrect information in the header.

auth-id Authorization ID of the invoker of the BIND subcommand.

object-type

The type of object being bound: PLAN or PACKAGE

object-name

If 'object-type' is PLAN, 'object-name' is the name of the application plan. Otherwise, it is the name of the package in 'location.collection.package' format.

dbrm-name

Name of the DBRM that is in error.

System Action: The bind is unsuccessful.

System Programmer Response: Precompile the application program associated with the indicated DBRM. Reinvoke the BIND subcommand.

DSNT232I SUCCESSFUL *bind-type* FOR PACKAGE = *package-name*

Explanation: A BIND, REBIND or FREE PACKAGE subcommand has completed successfully.

bind-type

Type of bind subcommand: BIND, REBIND, or FREE

package-name

Name of the package in the following format: 'location.collection.package.(version)'

System Action: The package was successfully bound, rebound, or freed.

DSNT233I UNSUCCESSFUL *bind-type* FOR PACKAGE = *package-name*

Explanation: Errors have been detected during the processing of the indicated BIND, REBIND, or FREE PACKAGE subcommand.

bind-type

Type of bind subcommand: BIND, REBIND, or FREE

package-name

Name of the package in the following format: 'location.collection.package.(version)'

System Action: The indicated package was not bound, rebound, or freed.

System Programmer Response: See other

messages issued to determine the error that caused the subcommand to terminate unsuccessfully.

DSNT234I MESSAGE LIMIT EXCEEDED

Explanation: A fixed amount of space exists in which to generate bind subcommand messages. This message says that the bind subcommand generated more messages than will fit in that space.

System Action: For bind subcommands that affect a single package, the bind subcommand process continues. However, no other messages are generated except for completion message DSNT232I or DSNT233I. For bind subcommands that affect more than one package, the bind subcommand process terminates and no other messages are generated.

System Programmer Response: The 'FLAG' parameter of the bind subcommand may be used to limit the types of messages that are generated.

DSNT235I *csect-name bind-type* AUTHORIZATION ERROR USING *auth-id* AUTHORITY PACKAGE = *package-name* PRIVILEGE = *privilege*

Explanation: The authorization ID given does not have the *privilege* indicated and cannot invoke the bind subcommand on the named package.

bind-type

Type of bind subcommand: BIND, REBIND, or FREE

auth-id Authorization ID of the package owner

package-name

Name of the package in the following format: 'location.collection.package.(version)'

privilege

Name of the privilege not held:

BINDADD or BINDADD *

The authority to create a new package using BIND with the ADD option.

BIND The authority to BIND (REPLACE) or REBIND a package.

BIND * The authority to add a new version of an existing package using BIND with the ADD option.

FREE There is no FREE privilege, but the user needs the proper authority to free the package.

COPY The authority to COPY from the indicated package.

CREATE IN or CREATE IN *

The authority to create a package in the indicated collection.

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A blank and asterisk (*) in the privilege values 'BINDADD *', 'BIND *', and 'CREATE IN *' in the message indicates that the DB2 system parameter BIND NEW PACKAGE has the value BIND. When ' *' does not appear in these privilege values, BIND NEW PACKAGE has the value BINDADD.

The system parameter BIND NEW PACKAGE affects the authorization required to add a new package or a new version of an existing package to a collection. For more information about this system parameter, see:

- "Installing, Migrating, and Updating System Parameters" (Panel: DSNTIPP) in Part 2 of *DB2 Installation Guide*.
- "Controlling Access to DB2 Objects" in Part 3 (Volume 1) of *DB2 Administration Guide*.

System Action: The indicated package is not bound, rebound, or freed.

System Programmer Response: You must grant the indicated privilege to the authorization ID of the package owner.

DSNT236I REBIND FOR PACKAGE *package-name*
FAILED BECAUSE IBMREQD OF
ibmreqd IS INVALID

Explanation: The IBMREQD column of the SYSIBM.SYSPACKAGE catalog table for the named package contains an unrecognizable character. This usually means that the package depends on a function of DB2 which is not supported by the currently active release.

This message is issued by the following CSECT:
DSNTBRB2

package-name

Name of the package in the following format:
'location.collection.package.(version)'

System Action: The package was not rebound.

System Programmer Response: Warn users not to use the package until the DB2 subsystem is remigrated to the newer release.

DSNT237I *csect-name* BIND *sub-type* ERROR
USING *auth-id* AUTHORITY PACKAGE =
package-name ALREADY EXISTS

Explanation: An attempt is made to add a package that already exists. The combination of 'location.collection.package.version' must be unique in the SYSIBM.SYSPACKAGE table. In addition, the combination of 'location.collection.package.consistency-token' must be unique.

sub-type

The sub-type can have the values: COPY, ADD or REPLACE.

auth-id Authorization ID of the owner of the package.

package-name

Name of the package in the following format:
'location.collection.package.(version)'

System Action: No package is created.

System Programmer Response: Check the SYSIBM.SYSPACKAGE catalog table for names of existing application packages. Re-invoke the BIND subcommand with a 'location.collection.package.version' that is not in use.

DSNT238I *bind-type error-type* USING *auth-id*
AUTHORITY PACKAGE = *package-name*
DOES NOT EXIST

Explanation: The indicated subcommand was issued against a package that does not exist. The individual variable fields contain:

bind-type

Type of bind subcommand (BIND COPY | BIND REPLACE | REBIND | FREE | BIND PLAN | REBIND PLAN | DROP PACKAGE). If BIND or REBIND PLAN is specified, the package-name refers to a package on the PKLIST for the plan.

error-type

Type of error: WARNING or ERROR.

auth-id Authorization ID of the invoker of the BIND subcommand.

package-name

Name of the package in the following format
'location.collection.package.(version)'

System Action: Package not rebound or freed.

System Programmer Response: Check the SYSPACKAGE catalog table for the correct 'location.collection.package.version' to use.

DSNT239I PLAN *plan-id* CONTAINS NO DBRMS
AND NO PACKAGES

Explanation: A plan with no DBRMs was rebound with the NOPKLIST option specified. This creates an empty plan. No SQL can be executed. The individual variable fields contain:

plan-id Plan name specified on the REBIND command.

System Action: This is a warning message. The REBIND process will continue.

System Programmer Response: If an empty plan is not desired, reissue the REBIND command with the PKLIST keyword specifying a new list.

DSNT240I *csect-name bind-type* **ERROR, ASTERISK NOT ALLOWED ON REMOTE *bind-type* PACKAGE**

Explanation: When remotely rebinding or freeing a package, an asterisk (*) cannot be specified anywhere in the name of a package. In other words, it is not possible to remotely rebind or free multiple packages.

System Programmer Response: Remove the asterisk and rebind, or free a specific package. Refer to *DB2 Command Reference* for the correct syntax for REBIND or FREE PACKAGE.

DSNT241I *bind-type AUTHORIZATION error-type ON PLAN *plan-id* AUTHORIZATION ID *auth-id* NOT AUTHORIZED TO EXECUTE PACKAGE *package-name**

Explanation: The indicated authorization ID does not have EXECUTE authority on the specified package in the package list.

bind-type

Type of bind subcommand: BIND or REBIND

error-type

Type of error: WARNING or ERROR. If VALIDATE(BIND) was specified, this is an ERROR message. Otherwise, it is a WARNING message.

plan-id Name of application plan specified in the subcommand.

auth-id Authorization ID of the plan owner.

package-name

Name of the package (collection.package). The location of the package is the local DB2 location name.

System Action: If the bind subcommand was invoked with VALIDATE(BIND), the BIND or REBIND operation is not performed. If VALIDATE(RUN) was used then the BIND or REBIND operation will continue.

System Programmer Response: The indicated plan owner should be granted the EXECUTE privilege on the package.

DSNT242I *bind-type* **ERROR USING *auth-id* AUTHORITY NO BIND OR REBIND SUBCOMMANDS ARE ALLOWED FOR THIS AUTHID**

Explanation: The authorization ID is not allowed to perform the indicated 'bind-type' against a plan or package because entries in the RLST table prohibit binding and rebinding by this authorization ID, or all authorization IDs.

bind-type

Type of bind subcommand: BIND or REBIND

auth-id Authorization ID of the plan or package owner.

System Action: The plan or package is not bound or rebound.

System Programmer Response: If the indicated authorization ID should be allowed to bind, change the entry in the active RLST table.

DSNT243I *pkg-id* **BIND ERROR FOR PACKAGE = *pkg-id* CONTOKEN = '*contoken*'X IS NOT UNIQUE SO IT CANNOT BE CREATED**

Explanation: An attempt is made to add or replace a package with a consistency token that is not unique for that package. In other words, the combination of 'location.collection.package.consistency-token' already exists.

pkg-id Fully qualified name of the package.

contoken

Consistency token in hexadecimal.

System Action: The BIND will fail.

System Programmer Response: Check the SYSIBM.SYSPACKAGE catalog table for names of existing application packages with the indicated consistency token. Re-issue the BIND subcommand such that the 'location.collection.package.consistency-token' is unique within the catalog. The following SQL statement can be used to query the catalog,

```
SELECT COLLID,NAME
FROM loc-id.SYSIBM.SYSPACKAGE
WHERE HEX(CONTOKEN) = 'contokn';
```

DSNT244I *bind-type* **ERROR *keyword* KEYWORD IS NOT SUPPORTED FOR REMOTE PROCESSING**

Explanation: The indicated keyword is not supported for the remote bind or rebind subcommand.

bind-type

Type of bind subcommand: BIND or REBIND

keyword

Name of the keyword that is not supported.

Programmer Response: Check *DB2 Command Reference* for the correct syntax.

DSNT245I *location* **LOCATION *location* CANNOT BE SPECIFIED. THE LOCAL DB2 IS NOT DEFINED**

Explanation: Since the local DB2 location name is undefined, no location name may be given when specifying a package name on a bind subcommand.

location

Location specified on the bind subcommand.

System Action: The bind subcommand was not performed.

System Programmer Response: The location name of the local DB2 must be defined in BSDS if the location is used in the BIND, REBIND, or FREE subcommand.

DSNT246I *bind-type* **FOR PACKAGE** *package-name*
WITH MARK *release-dependency-mark*
FAILED BECAUSE PACKAGE
DEPENDS ON FUNCTIONS OF THE
RELEASE FROM WHICH FALL BACK
HAS OCCURRED

Explanation: The named package depends on a function of DB2 which is not supported by the currently active release.

bind-type

Type of bind subcommand: REBIND

package-name

Name of the package in the following format:
'location.collection.package.(version)'

release-dependency-mark

A one-character mark showing the oldest release of the DB2 which can support this package. The release dependency mark for the package is kept in the IBMREQD column in the DB2 catalog in SYSIBM.SYSPACKAGE.

System Action: The 'bind-type' operation for this package is not performed.

User Response: The package cannot be bound until the DB2 subsystem is remigrated to the newer release.

System Programmer Response: Warn users not to use plans containing this package until the DB2 subsystem has been remigrated to the newer release.

DSNT247I *bind-type* **ERROR** *object-type* **NOT**
FOUND FOR *object-type = object-name*

Explanation: You attempted to FREE or REBIND multiple plans or packages using the asterisk (*) but no plans or packages were found.

bind-type

Type of bind subcommand: REBIND or FREE

object-type

Type of object to be freed or rebound: PLAN or PACKAGE

object-name

If object-type is PLAN, object-name is the name of the application plan. Otherwise, it is the name of the package in 'location.collection.package' format.

System Action: The REBIND or FREE operation is not performed.

User Response: Check the plan or package name. If it is correct, no plans or packages were found and no operation can be performed; otherwise, correct the plan

or package name and reissue the REBIND or FREE subcommand.

DSNT248I *csect-name bind-type* **ERROR FOR**
object-type object-name **CCSID = ccsid IS**
INVALID FOR ENCODING SCHEME =
scheme

Explanation: The system does not have a valid CCSID defined for the specified encoding scheme, or the specified CCSID is not defined on the system.

bind-type

Type of bind subcommand: BIND or REBIND.

object-type

PLAN or PACKAGE

object-name

If *object-type* is PLAN, *object-name* is the name of the application. Otherwise, it is the name of the PACKAGE in 'location.collection.package' format.

scheme

This field displays the encoding scheme specified in the ENCODING bind option on the *bind-type* subcommand or defaulted from the system default Application Encoding Scheme. If *scheme* is UNKNOWN, then the CCSID value has not been defined in the ENCODING bind option or by the system default Application Encoding Scheme, and therefore the encoding scheme is not known.

ccsid

This field displays the numeric CCSID specified in the ENCODING bind option or the numeric CCSID corresponding to the scheme specified in the ENCODING bind option. Otherwise, *ccsid* displays the numeric CCSID corresponding to the specified *ccsid-type*.

Severity: 8 (error)

System Action: The *bind-type* operation is not performed

User Response: Verify that the correct encoding scheme was specified in the ENCODING bind option on the *bind-type* subcommand. If correct, see System Programmer Response and contact the system programmer. If incorrect, specify the correct scheme in the ENCODING option and reissue the *bind-type* subcommand.

System Programmer Response: If the bind option ENCODING was not specified, and the value for ENCODING was defaulted from the system default Application Encoding Scheme instead, verify the Application Encoding Scheme is set to a defined CCSID.

If the value specified for the ENCODING option was ASCII, EBCDIC or UNICODE, verify the corresponding CODED CHAR SET subsystem parameter on the

installation panel DSNTIPF has been set to a defined CCSID.

Otherwise, inform the user of the correct CCSID. Refer to Appendix A of *DB2 Installation Guide* for more information regarding CCSIDs and character sets.

DSNT249I *csect-name bind-type* **WARNING FOR PLAN *plan-name* keyword LOCATION-ID *location-id* NOT FOUND IN SYSIBM.LOCATION**

Explanation: A 'location-id' was specified on the PKLIST or CURRENTSERVER keyword on a bind subcommand. That location is not defined in the SYSIBM.LOCATIONS table.

bind-type

Type of bind subcommand: BIND or REBIND

plan-name

Name of the plan

keyword

The bind subcommand containing the nonexistent location: PKLIST or CURRENTSERVER

location-id

The nonexistent location

System Action: The bind process will continue.

System Programmer Response: Define the appropriate 'location-ids' in the SYSIBM.LOCATION catalog table prior to executing the plan.

DSNT250I **BIND UNABLE TO OPEN DBRM LIBRARY USING *authorization-id* AUTHORITY *object-type* = *object-name***

Explanation: The BIND subcommand was unable to open the DBRM partitioned data set(s).

authorization-id

Authorization ID of the invoker of the BIND subcommand.

object-type

PLAN | PACKAGE

object-name

If 'object-type' is PLAN, 'object-name' is the name of the application plan. Otherwise, it is the name of the package in 'location.collection.package' format.

User Response: Contact the system programmer, providing all material associated with the error.

System Programmer Response: Determine why the BIND subcommand was unable to open the DBRM library, and correct the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem

determination," on page 1353: 1, 2, 5, 32.

DSNT251I **BIND UNABLE TO LOCATE DBRM LIBRARY MEMBERS USING *authorization-id* AUTHORITY *object-type* = *object-name***

Explanation: The BIND subcommand received an I/O error while attempting to locate the specified DBRM library member(s).

authorization-id

Authorization ID of the invoker of the BIND subcommand.

object-type

PLAN | PACKAGE

object-name

If object-type is PLAN, object-name is the name of the application plan. Otherwise, it is the name of the package in 'location.collection.package' format.

System Programmer Response: Correct the reason for the I/O error, and reissue the BIND subcommand.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 32.

DSNT252I *csect-name bind-type* **OPTIONS FOR PLAN *plan-name***

:

ACTION	<i>bind-option1</i>	<i>bind-option2</i>
OWNER	<i>bind-option3</i>	
VALIDATE	<i>bind-option4</i>	
ISOLATION	<i>bind-option5</i>	
ACQUIRE	<i>bind-option6</i>	
RELEASE	<i>bind-option7</i>	
EXPLAIN	<i>bind-option8</i>	
DYNAMICRULES	<i>bind-option9</i>	

Explanation: This message shows the BIND or REBIND options that were used for the plan specified by *plan-name* during bind or rebind processing.

Severity: 0 (informational)

DSNT253I *csect-name bind-type* **OPTIONS FOR PLAN** *plan-name*

:

(DEFER NODEFER)	PREPARE
CACHESIZE	<i>bind-option1</i>
QUALIFIER	<i>bind-option2</i>
CURRENTSERVER	<i>bind-option3</i>
CURRENTDATA	<i>bind-option4</i>
DEGREE	<i>bind-option5</i>
SQLRULES	<i>bind-option6</i>
DISCONNECT	<i>bind-option7</i>
REOPT	<i>bind-option8</i>
KEEPDYNAMIC	<i>bind-option9</i>
IMMEDWRITE	<i>bind-option10</i>
DBPROTOCOL	<i>bind-option11</i>
OPTHINT	<i>bind-option12</i>
ENCODING	<i>bind-option13(bind-option14)</i>
PATH	<i>bind-option15</i>

Explanation: This message shows the BIND or REBIND options that were used for the plan specified by *plan-name* during bind or rebind processing.

Severity: 0 (informational)

DSNT254I *csect-name bind-type* **OPTIONS FOR**

:

PACKAGE	<i>=package-name</i>
ACTION	(ADD REP)
OWNER	<i>owner</i>
QUALIFIER	<i>qualifier</i>
VALIDATE	(BIND RUN)
EXPLAIN	(NO YES)
ISOLATION	(RR CS RS UP blank)
RELEASE	(COMMIT DEALLOCATE blank)
COPY	<i>package-name</i>

Explanation: This message shows the BIND or REBIND options that were used for the local package specified by *package-name* during bind or rebind processing.

Severity: 0 (informational)

DSNT255I *csect-name bind-type* **OPTIONS FOR**

:

SQLERROR	<i>bind-option1</i>
CURRENTDATA	<i>bind-option2</i>
DEGREE	<i>bind-option3</i>
DYNAMICRULES	<i>bind-option4</i>
(DEFER NODEFER)	PREPARE
REOPT	<i>bind-option5</i>
KEEPDYNAMIC	<i>bind-option6</i>
IMMEDWRITE	<i>bind-option7</i>
DBPROTOCOL	<i>bind-option8</i>
OPTHINT	<i>bind-option9</i>
ENCODING	<i>bind-option10(bind-option11)</i>
PATH	<i>bind-option12</i>

Explanation: This message shows the BIND or REBIND options that were used for the local package specified by *package-name* during bind or rebind processing.

Severity: 0 (informational)

DSNT256I **DBRM MEMBER** *member-name* **IS EMPTY, A PACKAGE CANNOT BE BOUND**

Explanation: The named DBRM member is empty, a package cannot be created.

System Action: No package is created.

DSNT257I **BIND ERROR, PACKAGE** *package-name* **CANNOT BE CREATED BECAUSE IT HAS THE SAME NAME AS THE PACKAGE BEING COPIED**

Explanation: The location and collection-id of the package being created are the same as the local location and the collection-id specified with the COPY keyword. You cannot create a package that is the same name as the package being copied.

package-name
Name of the package
(location.collection.package.(version))

System Action: The package is not bound.

System Programmer Response: Choose a different collection id for the package you are creating and resubmit the subcommand.

DSNT258I *bind-type* **WARNING FOR PLAN** *plan-name* **THE LOCATION-ID** *location-id* **SPECIFIED IN CURRENTSERVER MAY NEED A PACKAGE LIST**

Explanation: If binding a PLAN with a nonlocal location specified in the CURRENTSERVER, a package list is required using the PKLIST keyword to access any packages at the location specified.

bind-type

Type of bind subcommand: BIND or REBIND

plan-name

Name of plan

location-id

Location of CURRENTSERVER

System Action: The bind process will continue.

System Programmer Response: Add a package list with package(s) that reference the location specified in the CURRENTSERVER or delete the CURRENTSERVER from the BIND or REBIND subcommand.

DSNT259I *bind-type* **WARNING FOR PLAN *plan-name* NO PACKAGES IN THE PACKAGE LIST REFERENCE THE LOCATION-ID *location-id* SPECIFIED IN CURRENTSERVER**

Explanation: There are no packages in the package list that reference the location specified in the CURRENTSERVER keyword.

bind-type

Type of bind subcommand: BIND or REBIND

plan-name

Name of plan

location-id

Location of CURRENTSERVER

System Action: The bind process will continue.

System Programmer Response: Change 'location-ids' for the packages in the package list to reference the location in the CURRENTSERVER or change the location specified in CURRENTSERVER.

DSNT260I *csect-name bind-type* - **THE SUBMITTED PARAMETERS RESULT IN AN INVALID COMBINATION OF *bind-option1* AND *bind-option2* FOR *object-type* = *object-name***

Explanation: The BIND or REBIND subcommand has been submitted with an invalid combination of bind option or parameter values.

bind-type

Type of bind subcommand: BIND or REBIND.

object-type

PLAN or PACKAGE

object_name

If *object-type* is PLAN, *object-name* is the name of the application plan. If *object_type* is PACKAGE, *object_name* is the name of the package in the format 'location-id.collection-id.package-id'.

bind-option1 and bind-option2

The invalid combination of bind option values, where *bind-option1* and *bind-option2* are each an option name and value.

If *object-type* is PLAN, then one of the following applies:

- *bind-option1* was used on the REBIND subcommand and *bind-option2* exists in the SYSIBM.SYSPLAN catalog table for PLAN *object-name*, or
- *bind-option2* was used on the REBIND subcommand and *bind-option1* exists in the SYSIBM.SYSPLAN catalog table for PLAN *object-name*.

If *object-type* is PACKAGE, then one of the following applies:

- *bind-option1* was used on the BIND COPY or REBIND subcommand and *bind-option2* exists in the SYSIBM.SYSPACKAGE catalog table for PACKAGE *object-name*, or
- *bind-option2* was used on the BIND COPY or REBIND subcommand and *bind-option1* exists in the SYSIBM.SYSPACKAGE catalog table for PACKAGE *object-name*.

The combination of *bind-option1* and *bind-option2* is not supported by DB2.

System Action: The BIND or REBIND process is terminated for the indicated plan or package.

User Response: Refer to *DB2 Command Reference* for valid combinations of the indicated bind option values, and reissue the BIND or REBIND subcommand with a valid combination.

Problem Determination: See the Explanation section of this message.

DSNT261I *bind-type* **WARNING FOR *object-type* = *object-name* ALL CONNECTION TYPES ARE DISABLED**

Explanation: All possible connection types are disabled. The plan or package cannot be executed.

bind-type

Type of bind subcommand: BIND or REBIND

object-type

PLAN or PACKAGE

object-name

If *object-type* is PLAN, *object-name* is the name of the application plan. Otherwise, it is the name of the package in 'location.collection.package' format.

System Action: The bind process will continue.

System Programmer Response: Delete one or more connection types from DISABLE clause or add a list of

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connection names associated with one of the connection types (DLIBATCH, CICS, IMSBMP, IMSMPP, or REMOTE. REMOTE is only valid for BIND/REBIND PACKAGE)

DSNT262I *csect-name bind-type* **WARNING - ISOLATION *old-iso* NOT SUPPORTED. CHANGING TO ISOLATION *new-iso***

Explanation: DB2 does not support the isolation level specified on the local BIND or REBIND PACKAGE subcommand. The isolation level specified by *new-iso* is used instead.

Severity: 4

System Action: Processing continues

User Response: If the new isolation level is not satisfactory, change the ISOLATION option on the BIND or REBIND PACKAGE subcommand and rebind the package. Use a value that DB2 supports.

DSNT263I *csect-name bind-type* **FOR *object-type* = *object-name* FAILED BECAUSE THE *bind-type* DEPENDS ON FUNCTIONS IN A LATER DB2 RELEASE WITH MARK *release-dependency-mark* OR HIGHER**

Explanation: The current DB2 does not support a bind option or feature specified in the indicated bind subcommand. The bind option or feature depends on functions in a later DB2 release.

bind-type

Type of bind subcommand: BIND or REBIND

object-type

PLAN or PACKAGE

object-name

If *object-type* is PLAN, *object-name* is the name of the plan.

If *object-type* is PACKAGE, *object-name* is the name of the package in the format 'location-id.collection-id.package-id'.

release-dependency-mark

A one-character mark indicating the oldest DB2 release that can support the bind subcommand.

This message can be issued in the following situations:

- When the DSN command explicitly or implicitly uses the name of a DB2 subsystem that does not support a bind option or feature used in the DSN bind subcommand *bind-type*, or
- When the DSN command uses a group attachment name for a DB2 data sharing group and the receiving DB2 data sharing member does not support a bind option or feature used in the DSN bind subcommand *bind-type*.

System Action: The *bind-type* operation is not performed.

User Response: In the DSN command, specify the name of a DB2 subsystem having release dependency mark *release-dependency-mark* or higher that supports all of the bind options or features used in the *bind-type* subcommand.

For a list of the DB2 release dependency marks and their meanings, refer to the IBMREQD column in the SYSIBM.SYSPLAN or SYSIBM.SYSPACKAGE DB2 catalog tables described in Appendix D of *DB2 SQL Reference*.

System Programmer Response: See the 'User Response' section of this message.

DSNT264I *csect-name bind-type bind-subtype* **ERROR USING *auth-id* AUTHORITY PACKAGE *package-name* IS A TRIGGER PACKAGE**

Explanation: To rebind a trigger package, you must use the DSN subcommand REBIND TRIGGER PACKAGE. To free a trigger package, you must use the SQL statement DROP TRIGGER. You cannot copy a trigger package.

bind-type

Type of bind subcommand: BIND, REBIND, or FREE

bind-subtype

Subtype of bind subcommand: COPY or blank

auth-id Authorization ID attempting the prohibited action

package-name

Name of the package in the following format: 'collection.package'

System Action: The trigger package is not copied, rebound, or freed.

System Programmer Response: Check the SYSIBM.SYSPACKAGE catalog table for names of existing trigger packages. Re-invoke the bind subcommand with a 'collection.package' that is not a trigger package.

DSNT265I *csect-name bind-type bind-subtype* **ERROR USING *auth-id* AUTHORITY PACKAGE *package-name* IS NOT A TRIGGER PACKAGE**

Explanation: The subcommand REBIND TRIGGER PACKAGE can be used only for trigger packages.

bind-type

Type of bind subcommand: REBIND

bind-subtype

Subtype of bind subcommand: TRIGGER

auth-id Authorization ID attempting the REBIND

package-name

Name of the package in the following format:
'collection.package'

System Action: The package specified is not rebound.

System Programmer Response: For a package that is not a trigger package, rebind using the subcommand REBIND PACKAGE. Re-invoke the bind subcommand with a 'collection.package' that is a trigger package.

DSNT266I *csect-name bind-type* FOR *object-type* = *object-name* FAILED. THE TOTAL LENGTH OF THE PATH SCHEMA NAME LIST EXCEEDS 254 CHARACTERS WITH SCHEMA NAME *schema-name*

Explanation: DB2 uses the schema name list you specified in the bind option PATH to set the DB2 SQL Path that will be used for the bind process. The SQL Path is a VARCHAR(254) string containing the list of schema names you specified, where each schema name is delimited with double quotes and separated from the next schema name by a comma. The total length of this SQL Path string, including the delimiters and commas, cannot exceed 254 characters. The indicated schema name *schema-name* in the bind option PATH causes the SQL Path string to exceed 254 characters.

bind-type

Type of bind subcommand: BIND or REBIND

object-type

PLAN or PACKAGE

object-name

If *object-type* is PLAN, *object-name* is the name of the plan.

If *object-type* is PACKAGE, *object-name* is the name of the package in the format 'location-id.collection-id.package-id.(version-id)'.
'location-id.collection-id.package-id.(version-id)'

schema-name

The schema name specified in the bind option PATH causing the SQL Path to exceed 254 characters.

System Action: The *bind-type* operation is not performed.

User Response: In the bind option PATH, specify a schema name list that does not cause the SQL Path to exceed 254 characters.

For more information about the bind option PATH and the schema name list, please see: Command Reference.

System Programmer Response: See the 'User Response' section of this message.

DSNT267I *csect-name* A TRIGGER PACKAGE CANNOT BE FREED USING THE FREE PACKAGE COMMAND

Explanation: A FREE PACKAGE command was received that identified the trigger package to be freed. Trigger packages can only be deleted using the DROP TRIGGER SQL statement.

System Action: The TSO Attachment Facility is ready for more input.

User Response: Use the SQL statement DROP TRIGGER to delete the trigger package.

DSNT268I *csect-name* A BIND COMMAND USING THE COPY OPTION NAMED A TRIGGER PACKAGE AS THE SOURCE FOR THE BIND

Explanation: A trigger package cannot be used as the source for a BIND COPY command.

System Action: The TSO Attachment Facility is ready for more input.

User Response: Correct the BIND command and resubmit.

DSNT270I THE FOLLOWING SQLCA INFORMATION WAS RETURNED FROM *subsystem*

:

SQLCODE = sqlcode
SQLSTATE = sqlstate
SQLERRMT = tokens
SQLWARN warn_fields

Explanation: A warning or error has been received from a database server using Advanced SQL protocols (ASP) of the Distributed Relational Database Architecture (DRDA), during remote program BIND processing. The tokens of the message are:

1. subsystem - the database server,
2. sqlcode - SQL return code,
3. sqlstate - additional set of return codes common to the four relational products,
4. tokens - specific tokens passed in the message portion of the SQLCA for problem determination, and
5. warn_fields - the warning information indicators.

This message is issued by the following CSECT:
DSNLXMSG

System Action: See the System Action associated with the indicated SQL return code.

System Programmer Response: See the Programmer Response associated with the indicated SQLCODE and/or SQLSTATE. Take note of the warning or error (as indicated in the SQLCODE, SQLSTATE, or one or more of the SQLWARN fields), and determine if

a program change is necessary. SQLWARNx fields are described in Appendix C of *DB2 SQL Reference*. A change to the application may be necessary or the system programmer may have to be consulted depending on the situation.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSNT271I THE FOLLOWING SQLCA INFORMATION WAS RETURNED FROM subsystem

```

:
  SQLCODE = sqlcode
  SQLSTATE = sqlstate
  SQLERRMT = tokens
  SQLWARN warn_fields
  STATEMENT = stmt_num
    
```

Explanation: A warning or error has been received from a database server using advanced SQL protocols (ASP) of the Distributed Relational Database Architecture (DRDA), during remote program BIND processing. The tokens of the message are:

1. subsystem - database server,
2. sqlcode - SQL return code,
3. sqlstate - additional set of return codes common to the four relational products,
4. tokens - specific tokens passed in the message portion of the SQLCA for problem determination,
5. warn_fields - the warning information indicators, and
6. stmt_num - the statement number of the failing statement.

This message is issued by the following CSECT: DSNLXMSG

System Action: See the System Action associated with the indicated SQLCODE.

System Programmer Response: Take note of the warning or error (as indicated in the SQLCODE, SQLSTATE, or one or more of the SQLWARN fields), and determine if a program change is necessary. SQLWARNx fields are described in Appendix C of *DB2 SQL Reference*. A change to the application may be necessary or the system programmer may have to be consulted depending on the situation.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSNT300I AUTH-ID authorization-id NOT AUTHORIZED TO PERFORM function ON DATABASE dbname. REQUEST REJECTED

Explanation: The invoker's 'authorization-id' as designated by AUTHORIZATION ID is not authorized to perform the specified database control command function on this database. The 'function' is either -START, -STOP, or -DISPLAY. The name of the database is 'dbname'.

System Action: The request is rejected.

User Response: Notify the system programmer.

System Programmer Response: The privilege to issue the command must be granted to the indicated 'authorization-id'.

DSNT301I INVALID DATABASE dbname

Explanation: The databases named in the -START, -STOP, or -DISPLAY DATABASE command do not exist. The name of the database is 'dbname'.

System Action: The request is rejected. This message may be repeated.

System Programmer Response: Reissue the command with a valid name.

DSNT302I INVALID NAME spname

Explanation: In the message, 'spname' is the name of the table space or index space. The 'spname' specified in the SPACENAM keyword on the -START, -STOP, or -DISPLAY DATABASE command does not exist.

System Action: The request is rejected. This message may be repeated.

System Programmer Response: Reissue the command with a valid table space name or index name.

DSNT304I csect-name INSTALLATION SYSOPR IS NOT AUTHORIZED TO CHANGE OBJECT STATUS ON DATABASE dbname. REQUEST IS REJECTED.

Explanation: INSTALLATION SYSOPR is not authorized to perform the START DATABASE command function on this database because the command can change an objects status in this database. INSTALL SYSOPR can use the START DATABASE command only to recover LPL pages or GRECP objects. The name of the database is *dbname*.

System Action: The request is rejected.

Operator Response: Reissue the -START DATABASE command using the correct access mode or contact your system programmer.

DSNT305I SUBSYSTEM FAILURE DURING
command-name **DATABASE COMMAND**
PROCESSING. RC = yy, REASON = zz

Explanation: An error was found while processing the -START, -STOP or -DISPLAY DATABASE command. In the message, 'command-name' is the string 'DISPLAY', 'STOP', or 'START' (depending upon the command processed).

System Action: Originating from CSECT DSNTDCST:

- For relational data system (RDS) subcomponent errors:
 - 'yy' is a 4-byte return code of 8.
 - 'zz' is a 4-byte abend code of '00E30085'.
 - For data manager (DM) subcomponent errors:
 - 'yy' is a 4-byte return code consisting of a 2-byte return code and a 2-byte reason code returned by the data manager function invoked by DSNTDCST.
 - 'zz' is a 4-byte abend code '00E30086'.
- A record is written to SYS1.LOGREC, and an SVC dump is requested before the execution unit is abended.

Originating from CSECT DSNTDDIS:

- 'yy' is a 4-byte return code of 12.
- 'zz' is a 4-byte abend code of '00E30089'.

The request is abended.

Originating from CSECTs DSNTDMUL or DSNTDMMSG:

- 'yy' is a 4-byte return code returned by the message generator.
- 'zz' is a 4-byte abend code of '00E30084'.

The request is abended.

System Programmer Response: Refer to Part 4, "Section 4. DB2 Codes," on page 773 for the particular abend reason code issued.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 17.

DSNT306I RESPONSE MESSAGE LIMIT HAS
BEEN REACHED

Explanation: A fixed amount of space exists in which to generate DISPLAY, START, or STOP database command messages. This message indicates that the DISPLAY, START, or STOP database command that was specified generated more messages than will fit in that space.

User Response: Specify individual databases and/or table spaces rather than specifying '*' (that is, all names).

DSNT307I INVALID RANGE SPECIFICATION
string1 **IS GREATER THAN** *string2*

Explanation: A range was specified on a DISPLAY DB(string1:string2) or DISPLAY DB(..) SPACENAM(string1:string2) command or on a database command (START DB, STOP DB, or DISPLAY DB) on PART(string1:string2) keyword where the first string, specified alphanumerically, collates after the second string.

User Response: Specify the command again. Make sure the first string does not alphanumerically collate after the second string specified.

DSNT308I AFTER KEYWORD ONLY VALID FOR A
SINGLE DATABASE OR A SINGLE
TABLESPACE/INDEXSPACE WITHIN A
DATABASE. REQUEST REJECTED

Explanation: The AFTER keyword may be specified by one of the following:

- A single database name after the keyword DATABASE
- A single table space name or index space name after the keyword SPACENAM.

User Response: Specify the command correctly.

DSNT309I csect-name object_name IS CURRENTLY
state.

Explanation: One of the following is already in the requested state:

- A database listed in START DB(list) or STOP DB(list)
- A table space listed in START DB(name) SPACENAM(list) or STOP DB(name) SPACENAM(list)
- An index space listed in START DB(name) SPACENAM(list) or STOP DB(name) SPACENAM(list)
- A partition of a partitioned table space listed in START DB(list) SPACENAM(list) PART(n), STOP DB(list) SPACENAM(list) PART(n), START DB(list) SPACENAM(list), or STOP DB(list) SPACENAM(list)

In the message:

- The 'object' is the database, table space, index space or partition number with table space name or the index space name.
 - TABLESPACE, if the specified table space was currently in the requested state
 - INDEXSPACE, if the specified index space was currently in the requested state
 - DATABASE, if the database was currently in the requested state
 - PARTITION, if the specified partition of a partitioned table space or partitioned index was currently in the requested state

DSNT310I • DSNT314I

- The 'state' is:
 - START RW, if the specified object is currently started read/write
 - START RO, if the specified object is currently started read only
 - START UT, if the specified object is currently started for utility processing
 - STOPPED, if the specified object is currently stopped or is stopping
 - STOP PENDING, if the specified object currently is in stop pending status.

If there are pages in the logical page list (LPL) for the object, or if the object is in group buffer pool recovery pending (GRECP) status, a START DATABASE ACCESS(RO) or START DATABASE ACCESS(RW) command triggers a recovery of that object even if this message is issued for that object. For each object that has LPL or GRECP recovery that is initiated, DB2 issues a DSNI006 message followed by either a DSNI021 message (when the recovery completes successfully) or a DSNI005 message (when the recovery is unsuccessful).

User Response: No response is necessary. This message is informational only.

DSNT310I *csect-name* **ALL** *object* **CURRENTLY** *state*.

Explanation: A database and all of its table spaces and index spaces are already in the requested state. This occurred following the processing of one of these commands:

- START DB(*)
- STOP DB(name)
- START DB(name) SPACENAM(*)
- STOP DB(name) SPACENAM(*)

In this message:

- The 'object' is either:
 - TABLESPACE(S) if the specified table space was currently in the requested state
 - INDEXSPACE(S) if the specified index space was currently in the requested state
 - DATABASE(S) if the database was currently in the requested state.
- The 'state' is either:
 - START RW if the specified table space is currently started read/write
 - START RO if the specified table space is currently started read only
 - START UT if the specified table space is currently started for utility processing
 - STOPPED if the specified table space is currently stopped, has a stop pending against it, or is stopping.

If there are pages in the logical page list (LPL) for the object, or if the object is in group buffer pool recovery pending (GRECP) status, a START DATABASE ACCESS(RO) or START DATABASE ACCESS(RW) command triggers a recovery of that object even if this message is issued for that object. For each object that has LPL or GRECP recovery that is initiated, DB2 issues a DSNI006 message followed by either a DSNI021 message (when the recovery completes successfully) or a DSNI005 message (when the recovery is unsuccessful).

User Response: No response is necessary. This message is informational only.

DSNT311I **MESSAGE LIMIT EXCEEDED. DISPLAY IS TERMINATED.**

Explanation: The number of messages generated exceeds the maximum number of messages specified in the LIMIT keyword or exceeds the system default.

DSNT312I *object name* **MUST BE STARTED RW. NO ACTION TAKEN.**

Explanation: The ACCESS keyword is either RO or UT, and the object must be started ACCESS (RW).

In the message, 'object' is either:

- TABLESPACE(S) IN if the START DB(name) SPACENAM(...) is specified, or
- DATABASE if the START DB(name) is specified.

DSNT313I **ACCESS(FORCE) IS VALID ONLY WITH EXPLICIT TABLESPACE OR INDEXSPACE NAMES. COMMAND IS REJECTED**

Explanation: The ACCESS(FORCE) keyword can be specified when either:

- A single table space or index space name appears after the keyword SPACENAM in a START DATABASE command.
- A list of table space and/or index space names appears after the keyword SPACENAM in a START DATABASE command.

Operator Response: Specify the command correctly.

DSNT314I *csect_name* **INVALID PARTITION SPECIFICATION FOR OBJECT** *object-name*

Explanation: The PART keyword is invalidly specified in a START DATABASE, STOP DATABASE, or DISPLAY DATABASE command.

The PART keyword is invalid if it is specified for:

- A nonpartitioned table space
- A nonpartitioned type 1 index
- A type 2 index not defined on a partitioned table space

The object *object-name* can be either a table space or an index space.

No action for this table space or index space is performed by the START DATABASE, STOP DATABASE or DISPLAY DATABASE command. Any other valid table space or index space specified is processed by the command.

Severity: 8 (error)

System Action: The desired command is not processed for the table space or index space in question. All other valid table spaces or index spaces specified in the command are processed.

User Response: Resubmit the command for the nonpartitioned table space or index space without using the PART keyword.

Problem Determination: SYSIBM.SYSTABLESPACE in the DB2 catalog indicates whether a table space is partitioned. SYSIBM.SYSINDEXSPACE in the DB2 catalog indicates whether an index space is partitioned and whether the index space is a type 1 or a type 2 index. Type 2 nonpartitioned indexes can be started, stopped, or displayed at the logical partition level; type 1 cannot.

DSNT315I *csect_name* **INVALID PARTITION NUMBER OR RANGE SPECIFIED -**
part-num **FOR OBJECT** *object-name*

Explanation: An invalid partition number or range was specified in the PART keyword for a START DATABASE, STOP DATABASE or DISPLAY DATABASE command.

Partition number or range *part-num* is invalid for the object *object-name*.

Severity: 8 (error)

System Action: The part number or range is ignored. All other valid partitions specified are processed if PART was specified as list.

User Response: Determine the correct partition specification for the table space or index that was the subject of the specified command and resubmit the command.

Problem Determination: SYSIBM.SYSTABLESPACE in the DB2 catalog indicates the correct range of partition numbers for the table space. SYSIBM.SYSINDEXSPACE in the DB2 catalog indicates whether an index space is partitioned and whether the index space is a type 1 or a type 2 index. Type 2 indexes can be started, stopped, or displayed at the logical partition level; type 1 cannot.

DSNT316I *csect-name* **A LOGICAL PARTITION OF AN INDEX WHICH HAS PAGES IN THE LPL OR HAS BEEN MARKED GRECP CANNOT BE STARTED FOR RW OR RO ACCESS**

Explanation: The START DATABASE command was specified for a logical partition of a nonpartitioned index which has pages in the logical page list (LPL) or is marked group buffer pool recovery pending (GRECP). To start a nonpartitioned index with one of these exception conditions, the START DB command must be specified without the PART keyword.

Severity: 8 (error)

System Action: The command is not processed for the index space. All other valid table spaces or index spaces specified in the command are processed.

User Response: Submit the command for the nonpartitioned index space without using the PART keyword.

Problem Determination: If more information on the status of the index space is required, use the -DISPLAY DATABASE command.

DSNT317I *csect-name* **ANY USER-DEFINED INDEXES ON DSNDB06 COULD NOT BE** *cmd-type* **DUE TO A RESOURCE UNAVAILABLE ON THE CATALOG OR DIRECTORY.**

Explanation: If user-defined indexes exist on DSNDB06, they could not be displayed, started or stopped (depending on *cmd-type*) because the catalog or directory was not available. DB2-defined indexes and table spaces are not affected by this unavailability.

Programmer Response: When you get this message, correct the resource unavailable problem and reissue the command.

System Action: Any user-defined indexes on DSNDB06 were not affected by the command issued. All other table spaces and index spaces were processed by the command.

DSNT331I *csect-name* **DATABASE** *name* **AND ANY SPACE IT CONTAINS CANNOT BE STOPPED. IT IS THE ACTIVE COMMUNICATIONS DATABASE**

Explanation: The database specified in the message cannot be stopped because it is the active communications database. In addition, spaces within the active communications database cannot be stopped.

System Action: Nothing is stopped.

Operator Response: If the database or any space within it must be stopped, you must stop the distributed data facility (STOP DDF). In a DB2 data sharing environment, you must stop the distributed data facility

on all members of the DB2 data sharing group.

DSNT332I TABLESPACES AND INDEXSPACES ARE UNAVAILABLE BECAUSE DATABASE name IS STOPPED

Explanation: The database 'name' is currently marked as stopped. Consequently, its table spaces and index spaces are unavailable even though they may have been started.

DSNT350I -luw-id ACCESSING DATA FOR location

Explanation: This message follows message DSNT394I or DSNT396I for each thread reported that is participating in distributed data access (database access thread). This additional line reports the distributed identification as follows:

luw-id=token

The logical-unit-of-work identifier (LUW-ID) is a unique identifier that is assigned to the thread followed by an '=' sign and a token. The token can be used in place of luw-id in any DB2 command that accepts luw-id as input.

location

The LOCATION name assigned to the requesting site.

The message number and subsystem recognition character are not included in this message.

This message is issued by the following CSECT: DSNTDMUL

DSNT358I csect_name INVALID PARTITION SPECIFICATION FOR OBJECT object-name

Explanation: Specification of the PART keyword in a DISPLAY DATABASE command is invalid.

The PART keyword is invalid if it is specified for:

- A nonpartitioned table space
- A nonpartitioned type 1 index
- A type 2 index not defined on a partitioned table space

The object *object-name* can be either a table space or an index space.

No action for this table space or index space is performed by the DISPLAY DATABASE command. Any other valid table space or index space specified is processed by the command.

Severity: 8 (error)

System Action: The desired command is not processed for the table space or index space in question. All other valid table spaces or index spaces

specified in the command are processed.

User Response: Resubmit the command for the nonpartitioned table space or index space without using the PART keyword.

Problem Determination: SYSIBM.SYSTABLESPACE indicates whether a table space is partitioned. SYSIBM.SYSINDEXSPACE indicates whether an index space is partitioned and whether the index space is a type 1 or a type 2 index. Type 2 nonpartitioned indexes can be displayed at the logical partition level; type 1 indexes cannot.

DSNT359I csect_name INVALID PARTITION NUMBER SPECIFIED - part-num FOR OBJECT object-name

Explanation: An invalid partition number was specified in the PART keyword for a DISPLAY DATABASE command.

Partition number *part-num* is invalid for the object *object-name*.

Severity: 8 (error)

System Action: The part number is ignored. All other valid partitions specified are processed.

User Response: Determine the correct partition specification for the table space or index that was the subject of the specified command and resubmit the command.

Problem Determination: SYSIBM.SYSTABLESPACE in the DB2 catalog indicates the correct range of partition numbers for the table space. SYSIBM.SYSINDEXSPACE in the DB2 catalog indicates whether an index space is partitioned and whether the index space is a type 1 or a type 2 index. The PART keyword can be used to display the status of logical partitions of type 2 indexes but not type 1 indexes.

DSNT360I *****

Explanation: This message consists of 35 asterisks that begin the display of any database and the display of space names for any database.

DSNT361I *DISPLAY DATABASE SUMMARY* report-type-list

Explanation: This message is a multiple-line message that labels the requested set of databases, table spaces, and index spaces.

In the message, 'report-type-list' lists all options specified on the command delimited by spaces. Possible values are:

ACTIVE

All allocated databases are listed.

GLOBAL

All requested database information is listed. This title is produced if ACTIVE, DISABLED, and RESTRICT are omitted.

LOCKS

The connection identifiers and correlation identifiers of all applications holding, retaining, or waiting for locks on the specified table spaces or index spaces are displayed.

RESTRICT

All databases with restricted usage (that is, RO, started UT) are listed.

USE

The connection identifiers and correlation identifiers of all allocated applications are listed.

CLAIMERS

The connection identifiers and correlation identifiers of all applications holding claims on the specified database are displayed.

LPL

The page number ranges of the pages that are included in the logical page list for the table space or index space.

OVERVIEW

All table spaces and index spaces that are contained within the databased that are specified.

DSNT362I **DATABASE =** *data-base-name* **STATUS**
 = *status* **DBD LENGTH =** *dbd-length*

Explanation: This message signals the beginning of display information from the DISPLAY DATABASE command. It lists the name, status, and DBD length of the database. All table space and index space names listed in the following DSNT392I, DSNT394I, or DSNT396I messages are contained within this database.

data-base-name

The database name.

status All a combination of one or more of the following strings delimited by a comma. The maximum length of the string is 18 characters.

RO The database is started for read activity only.

RW The database is started for read and write activity.

STOP The database is stopped.

STOPP A stop is pending or is in progress for this database.

UT The database is started for utility processing only.

DSNT363I **PHYSICAL ERROR PAGE RANGE FOR DATA SET** *data-set-name* **LOW=lowphy, HIGH=hiphy**

Explanation: This message is the response to a -DISPLAY DATABASE command when the SPACENAM keyword is specified in order to notify the user of any physical I/O errors encountered on a data set.

In the message, 'data-set-name' is the name of the data set with errors. The variables 'lowphy' and 'hiphy' identify the range of physical pages, within the data set, that were being read when the I/O errors occurred. Physical page numbers are assigned in relationship to the beginning of the data set in which the pages reside.

This message is always preceded by messages DSNT360I and DSNT361I, which identify the name of the database and page set that the specified data set supports.

Page sets (table spaces or index spaces) are made up of supporting data sets. Physical pages are pages in supporting data sets that are numbered from the beginning of the particular data set in which they reside. This message refers to physical pages in a data set that support (are part of) some page set.

System Action: See the Explanation section for this message.

DSNT364I *csect-name* **KEYWORD ONLY IS USED INCORRECTLY**

Explanation: Keyword *ONLY* is used incorrectly in the DISPLAY DATABASE command. When the SPACENAM keyword is specified, keyword *ONLY* is valid only if one of the following keywords is also used:

- LOCKS
- LPL
- CLAIMERS
- WEPR
- USE

System Action: The DISPLAY DATABASE command is not processed.

User Response: Add one of the keywords mentioned above in the explanation to the DISPLAY DATABASE command and issue the command again.

DSNT365I **NO DATABASES FOUND**

Explanation: This message is produced when a DISPLAY DB(name) is entered and no databases were found to satisfy the request.

System Action: The process continues normally.

DSNT366I DATABASE name NOT type

Explanation: A database listed in the DISPLAY DB(...) is not of the correct type. The variables are as follows:

- name** The name of the object.
- type** The type of request specified: ACTIVE, RESTRICTED, ACTIVE OR RESTRICTED

Note that either DSNT301I or DSNT302I is produced if no object is found and the keywords ACTIVE and RESTRICT are omitted.

System Action: Processing continues normally.

DSNT368I csect-name MORE THAN ONE MUTUALLY EXCLUSIVE KEYWORD WAS SPECIFIED IN THE DISPLAY DATABASE COMMAND.

Explanation: The keywords, LOCKS, LPL, CLAIMERS, WEPR and USE are mutually exclusive. Only one should be specified in a DISPLAY DATABASE command. The precedence order for which keyword takes precedence over the others is:

1. LPL
2. CLAIMERS
3. LOCKS
4. USE
5. WEPR

System Action: The DISPLAY DATABASE command is processed with this warning message.

User Response: Remove keywords from DISPLAY DATABASE command until only one of these mutually exclusive keywords is specified.

DSNT367I NO INFORMATION AVAILABLE

Explanation: This message indicated there is no LOCK, USE, LPL, WEPR or CLAIMER information available when DISPLAY DB(...) SPACENAM(...) ONLY is entered with the keywords LOCKS, USE, LPL, WEPR or CLAIMERS.

System Action: The process continues normally.

DSNT375I PLAN=*plan-id1* WITH CORRELATION-ID=*id1* CONNECTION-ID=*id2* LUW-ID=*id3* THREAD-INFO=*id4* IS DEADLOCKED WITH PLAN=*plan-id2* WITH CORRELATION-ID=*id5* CONNECTION-ID=*id6* LUW-ID=*id7* THREAD-INFO=*id8* ON MEMBER *id9*

Explanation: This message is issued whenever plan *plan-id1* with correlation *id1*, connection *id2*, and LUW *id3* is denied an IRLM lock because of a detected deadlock. Plan *plan-id2* identifies one of the members of the deadlock.

DB2 does not attempt to identify all survivors of a deadlock or all participants in a deadlock in the DSNT375I message. Plan *plan-id2* in message DSNT375I might be just one of several plans holding locks on the desired resource.

If multiple deadlocks are detected during the same deadlock-detection interval, the lock holder identified by *plan-id2* in one DSNT375I message might be selected to break a deadlock identified by a different DSNT375I message. The lock holder identified by *plan-id2* is not guaranteed to be a winner in all deadlocks in which it participates.

A DB2 IFCID 172 trace record contains the information needed to determine all participants in, and survivors of, a given deadlock.

plan-id1, plan-id2

The names of the executing plans.

- id1** The correlation identifier of the thread associated with *plan-id1*. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify a system agent.
- id2** The connection identifier of the thread associated with *plan-id1*.
- id3** The logical-unit-of-work identifier of the thread associated with *plan-id1*. An asterisk (*) indicates that the thread does not have an LUW-ID. If the LUW-ID is not an asterisk, the value is a logical-unit-of-work identifier that is assigned to the thread. It is followed by an equal (=) sign and a token value, which can be used in place of the logical-unit-of-work identifier in any DB2 command that accepts a logical-unit-of-work identifier as input.
- id4** This ID contains additional identifiers that define more specific information regarding the identity of the agent.

In many distributed configurations, the primary authorization-ID used with DB2 is not necessarily the user-ID of the end-user. If provided by the client, the additional tokens further assist in identifying the client end-user.

The following identifiers, separated by a colon (:), are provided:

- The primary authorization-ID associated with the thread.
- Workstation name of the end-user's workstation. An asterisk (*) indicates it is not relevant to the thread or was not provided by the client.
- End-user's user-ID. An asterisk (*) indicates it is not relevant to the thread or was not provided by the client.

- Application name of the end-user's application. An asterisk (*) indicates that is not relevant to the thread or was not provided by the client.

- id5** The correlation identifier of the thread associated with *plan-id2*.
- id6** The connection identifier of the thread associated with *plan-id2*.
- id7** The logical-unit-of-work identifier of the thread associated with *plan-id2*. An asterisk (*) indicates that the thread does not have an LUW-ID. If the LUW-ID is not an asterisk, the value is a logical-unit-of-work-identifier that is assigned to the thread followed by an equal (=) sign and a token value, which can be used in place of logical-unit-of-work identifier in any DB2 command that accepts logical-unit-of-work identifier as input.
- id8** This ID contains additional identifiers that define more specific information regarding the identity of the agent.
- In many distributed configurations, the primary authorization-ID used with DB2 is not necessarily the user-ID of the end-user. If provided by the client, the additional tokens further assist in identifying the client end-user.
- The following identifiers, separated by a colon (:), are provided:
- The primary authorization-ID associated with the thread.
 - Workstation name of the end-user's workstation. An asterisk (*) indicates it is not relevant to the thread or was not provided by the client.
 - End-user's user-ID. An asterisk (*) indicates it is not relevant to the thread or was not provided by the client.
 - Application name of the end-user's application. An asterisk (*) indicates that is not relevant to the thread or was not provided by the client.
- id9** Identifies the member name of the DB2 subsystem on which the thread associated with *plan-id2* is executing.

DB2 can recover from a lock denial in some cases and can complete successfully. In such a case, the SQLCA is not filled in. One example is during setup of performance enhancements during bind time for execution time.

The SQLCA corresponding to correlation id *id1*, connection id *id2*, and LUW-ID *id3* contains an SQLCODE of -904, -911, -913, or -923 and the name of the resource involved in the deadlock.

If you receive a system plan in this message, see the information about system plans in message DSNT376I.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 18.

DSNT376I PLAN=*plan-id1* WITH
CORRELATION-ID=*id1*
CONNECTION-ID=*id2* LUW-ID=*id3*
THREAD-INFO=*id4* IS DEADLOCKED
WITH PLAN=*plan-id2* WITH
CORRELATION-ID=*id5*
CONNECTION-ID=*id6* LUW-ID=*id7*
THREAD-INFO= *id8* ON MEMBER *id9*

Explanation: This message is issued whenever plan *plan-id1* with correlation *id1*, connection *id2*, and LUW *id3* is denied a lock by IRLM, because the amount of time to wait for a locked resource was exceeded. Plan *plan-id2* identifies one of the plans holding a lock on the desired resource. The listed plan is not necessarily responsible for the time-out condition.

plan-id1, plan-id2

The names of the executing plans.

- id1** The correlation identifier of the thread associated with *plan-id1*. If the execution of the plan was switched by DB2 to a system agent, the correlation identifier identifies the system agent. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.
- id2** The connection identifier of the thread associated with *plan-id1*. If the execution of the plan was switched by DB2 to a system agent, the connection identifier is the DB2 subsystem name.
- id3** The logical-unit-of-work identifier of the thread associated with *plan-id1*. An '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-ID that is assigned to the thread followed by an "=" sign and a token value, which can be used in place of logical-unit-of-work-ID in any DB2 command that accepts logical-unit-of-work-ID as input.
- id4** This ID contains additional identifiers that define more specific information regarding the identity of the agent.

In many distributed configurations, the primary authorization-ID used with DB2 is not necessarily the user-ID of the end-user. If provided by the client, the additional tokens further assist in identifying the client end-user.

The following identifiers, separated by a colon (:), are provided:

- The primary authorization-ID associated with the thread.
- Workstation name of the end-user's workstation. An asterisk (*) indicates it is not relevant to the thread or was not provided by the client.
- End-user's user-ID. An asterisk (*) indicates it is not relevant to the thread or was not provided by the client.
- Application name of the end-user's application. An asterisk (*) indicates that is not relevant to the thread or was not provided by the client.

id5 The correlation identifier of the thread associated with *plan-id2*. If the execution of the plan was switched by DB2 to a system agent, the correlation identifier identifies the system agent. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

id6 The connection identifier of the thread associated with *plan-id2*. If the execution of the plan was switched by DB2 to a system agent, the connection identifier is the DB2 subsystem name.

id7 The logical-unit-of-work identifier of the thread associated with *plan-id2*. An '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-ID that is assigned to the thread followed by an "=" sign and a token value, which can be used in place of logical-unit-of-work-ID in any DB2 command that accepts logical-unit-of-work-ID as input.

id8 This ID contains additional identifiers that define more specific information regarding the identity of the agent.

In many distributed configurations, the primary authorization-ID used with DB2 is not necessarily the user-ID of the end-user. If provided by the client, the additional tokens further assist in identifying the client end-user.

The following identifiers, separated by a colon (:), are provided:

- The primary authorization-ID associated with the thread.
- Workstation name of the end-user's workstation. An asterisk (*) indicates it is not relevant to the thread or was not provided by the client.
- End-user's user-ID. An asterisk (*) indicates it is not relevant to the thread or was not provided by the client.

- Application name of the end-user's application. An asterisk (*) indicates that is not relevant to the thread or was not provided by the client.

id9 Identifies the member name of the DB2 subsystem on which the thread associated with *plan-id2* is executing.

DB2 can recover from a lock denial in some cases and can complete successfully. In such a case, the SQLCA is not filled in. One example is during setup of performance enhancements during bind time for execution time.

The SQLCA corresponding to correlation-ID *id1*, connection-ID *id2*, and LUW-ID *id3* contains an SQLCODE of -904 or -923 and the name of the resource involved in the timeout.

Several different system plans can appear in *plan-id1* and *plan-id2*. These system plans are not documented in SYSIBM.SYSPLAN. If you receive a system plan in this message, you are in contention with another user. If you are not doing an automatic rebind, message DSNT500I or DSNT501I might accompany this message and identify that resource. If you need additional information, refer to the SQLCA and any additional bind messages. If you are doing an auto rebind, the SQLCA is not available. Refer to Part 5 of *DB2 Application Programming and SQL Guide* for more information about automatic rebinding. The system plans are:

- ACT
- BCT
- DISTSERV
- DSNBIND
- STARTCT
- DSNUTIL.

Operator Response: Notify the system programmer.

System Programmer Response: Timeouts can happen for many reasons, including factors relating to DB2 or IRLM. Some of those reasons are listed below along with possible ways to reduce or eliminate your timeout. Refer to Part 5 (Volume 2) of *DB2 Administration Guide* for more detail about the concepts discussed in this list. See also SQLCODEs -911 and -913.

Timeouts can result from the definition of objects or the structure of applications as explained below.

- If the resource involved in the timeout is listed in the DSNT500I/DSNT501I message as a table or table space, check the following items for other possible causes of timeout:
 1. Check the LOCKRULE column value in SYSIBM.SYSTABLESPACES for the table space being accessed. A lock size of TABLE or TABLESPACE could cause a timeout. If your application does not need to lock the entire table

or table space, you can resolve the timeout by changing the lock size to PAGE or ANY using the ALTER statement.

2. Check the number of LOCKS PER TABLE(SPACE), which was set at the time DB2 was installed. If a large number of page or row locks are acquired and held, a small value for LOCKS PER TABLE(SPACE) could be causing lock escalation to a table or table space lock. The timeout can be resolved by changing the value on the DSNTIPK update panel or by binding the application's plan with RELEASE(COMMIT) and doing commits more frequently.
 3. You can use EXPLAIN (described in Part 5 of *DB2 Application Programming and SQL Guide*) with the failing SQL statement and check the TSLOCKMODE column for every table/table space in the EXPLAIN output. If the competing applications are attempting to obtain incompatible locks, you might be able to resolve the timeout by running the applications sequentially rather than concurrently or by following the suggestions in other steps listed here, such as changing lock size, ACQUIRE/RELEASE parameters or ISOLATION type.
 4. Check the ACQUIRE/RELEASE values specified on the plan. ACQUIRE(ALLOCATE) acquires all locks for all tables and table spaces referenced in the plan, even if the program logic does not cause the table/table space to be accessed. Binding with RELEASE(DEALLOCATE) causes table, table space and DBD locks to be held longer than binding with RELEASE(COMMIT), possibly causing a timeout.
 5. Use the DISPLAY DB LOCKS command during program execution to verify that the locks being held at the time of the timeout are as expected. If they are not, you may need to use ALTER to change the locksize of the table space if possible, or rebind your plan with different ACQUIRE, RELEASE or ISOLATION values.
 6. ISOLATION level affects the mode of table/table space locks chosen and may be of concern if the plan is bound with RR and there is a page set scan.
- Check the ISOLATION level specified on the plan in SYSIBM.SYSPLAN. A value of RR is more likely to cause a timeout because it requires more page or row locks and also has a greater potential than CS for causing lock escalation, which can cause timeouts as noted above.
 - Check the frequency of COMMITs in the application. A large number of updates without any COMMITs can cause a timeout because the more pages that are changed, the more page or row locks held, and the greater potential for lock escalation.

This condition might be caused by an undetected deadlock, for example, an agent holding a lock on the

resource for a period of time that exceeds either the specified time or the IRLM default wait time.

If the time limit is too small, you can increase the limit by specifying a new IRLM locked resource wait time limit. To do this, you can either use the parameter in the DSN6SPRM assembler macro in the DSNTIJUZ job stream or update the 'wait-time' field of the DB2 installation IMS Resource Lock Manager panel, IRLMRWT. You must also specify all other parameters contained in this version of the CSECT. Then do one of the following:

- Resubmit installation job DSNTIJUZ with the link-edit SYSIN file 'NAME' parameter that matches the -START DB2 'PARM=' parameter.
- Reassemble DSN6SPRM and relink-edit DSNZPARM by resubmitting installation job DSNTIJUZ. The link-edit SYSIN file 'NAME' parameter must match the -START DB2 'PARM=' parameter.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 9, 18.

DSNT377I PLAN=*plan-id1* WITH
CORRELATION-ID=*id1*
CONNECTION-ID=*id2* LUW-ID=*id3*
THREAD-INFO=*id4* IS IN CONFLICT
WITH AN INDOUBT THREAD ON
MEMBER *id5*

Explanation: This message is issued by the service controller subcomponent. A plan cannot gain an IRLM lock because a required resource is currently undergoing recovery. The message identifies the plan in this way:

plan-id1

The name of the executing plan.

id1 The correlation identifier (ID) of the thread associated with plan *plan-id1*. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

id2 The connection-ID of plan *plan-id1*.

id3 The logical-unit-of-work identifier ('LUW-ID') of *plan-id1*. An '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work ID that is assigned to the thread followed by an "=" sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

id4 This ID contains additional identifiers that define more specific information regarding the identity of the agent.

In many distributed configurations, the primary authorization-ID used with DB2 is not necessarily the user-ID of the end-user. If

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provided by the client, the additional tokens further assist in identifying the client end-user.

The following identifiers, separated by a colon (:), are provided:

- The primary authorization-ID associated with the thread.
- Workstation name of the end-user's workstation. An asterisk (*) indicates it is not relevant to the thread or was not provided by the client.
- End-user's user-ID. An asterisk (*) indicates it is not relevant to the thread or was not provided by the client.
- Application name of the end-user's application. An asterisk (*) indicates that is not relevant to the thread or was not provided by the client.

id5 Identifies the member name of the DB2 subsystem on which the indoubt thread is executing.

The SQLCA corresponding to correlation-ID *id1*, connection-ID *id2*, and LUW-ID *id3* contains an SQLCODE -904, -911, -913, or -923 and the name of the resource currently being recovered by DB2.

If you receive a system plan in this message, see the information about system plans in message DSNT376I.

System Action: Processing continues.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 4.

DSNT378I *csect-name* **PLAN=*plan-id1* WITH CORRELATION-ID=*id1* CONNECTION-ID=*id2* LUW-ID=*id3* THREAD-INFO=*id4* TIMED OUT BECAUSE OF A RETAINED LOCK HELD BY MEMBER *id5***

Explanation: A plan cannot get an IRLM lock because the resource is held by a retained lock on behalf of another member in the data sharing group, and the amount of time to wait for the locked resource was exceeded. The member holding the retained lock is either failed, or is in the process of restarting to recover its retained locks. This message is only issued if the RETLWAIT installation parameter in DSN6SPRM is set to 'YES'. If RETLWAIT is set to 'NO' (this is the default), then any IRLM lock that conflicts with a retained lock will not wait, but instead will be immediately rejected (see reason codes 00C900BE and 00C20254).

The following identifiers are used in the message:

plan-id1

The name of the executing plan.

id1 The correlation identifier (ID) of the thread

associated with plan *plan-id1*. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

id2 The connection-ID of plan *plan-id1*.

id3 The logical-unit-of-work identifier ('LUW-ID') of *plan-id1*. An '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work id that is assigned to the thread followed by an "=" sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

id4 This ID contains additional identifiers that define more specific information regarding the identity of the agent.

In many distributed configurations, the primary authorization-ID used with DB2 is not necessarily the user-ID of the end-user. If provided by the client, the additional tokens further assist in identifying the client end-user.

The following identifiers, separated by a colon (:), are provided:

- The primary authorization-ID associated with the thread.
- Workstation name of the end-user's workstation. An asterisk (*) indicates it is not relevant to the thread or was not provided by the client.
- End-user's user-ID. An asterisk (*) indicates it is not relevant to the thread or was not provided by the client.
- Application name of the end-user's application. An asterisk (*) indicates that is not relevant to the thread or was not provided by the client.

id5 Identifies the member name of the failed or restarting DB2 subsystem which holds the conflicting retained lock.

System Action: The SQLCA corresponding to correlation-ID *id1*, connection-ID *id2*, and LUW-ID *id3* contains an SQLCODE -904, -911, -913 or -923 and the name of the resource involved in the timeout.

System Programmer Response: Restart the member holding the retained lock if it has not yet been restarted.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 4.

DSNT379I **CANNOT IDENTIFY TO IRLM. INVALID SSNAME OR IRLM IS NOT CURRENTLY ACTIVE**

Explanation: Either an attempt was made to identify the IRLM with a subsystem name not recognized by MVS, or the IRLM is not currently active. This message

is also issued if common service area (CSA) storage is insufficient.

System Action: DB2 abends with a reason code of X'04E'.

Operator Response: Notify system programmer.

System Programmer Response: This is probably a user error. Change the IRLMSID parameter in the DB2 DSN6SPRM initialization macro to match the MVS subsystem table, or start IRLM if IRLM is not already up. See return code 00E30079 for further information about determining the cause of the error.

DSNT380I CANNOT IDENTIFY TO IRLM, SSNAME ALREADY IN USE

Explanation: Either DB2 previously terminated and did not successfully sign off from IRLM, or another subsystem is identified to IRLM with this installation-defined SSNAME. This message accompanies abend reason code X'00E30071'.

System Action: DB2 is abended with an abend code of X'04E'.

Operator Response: Notify the system programmer.

System Programmer Response: Either manually stop IRLM, or change the installation-defined SSNAME.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 9, 18.

DSNT381I IRLM QUIT REQUEST FAILED, RC = xx, SC = yy

Explanation: During the QUIT (or signoff) request to the IMS/VS Resource Lock Manager, a return code and subcode were returned indicating an unsuccessful completion of the request. Refer to Part 5, "IRLM messages and codes," on page 1307, for IRLM return codes and subcode meanings.

System Action: This message indicates that the DB2 subsystem shutdown could not be completed normally.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of the failure from the return code and subcode, and correct the error. Refer to Part 5, "IRLM messages and codes," on page 1307, for IRLM return codes and subcode meanings. DB2 has terminated but has not signed off from IRLM. It will be necessary to issue the 'F irlmproc, ABDUMP' command to stop the IRLM. This must be done before issuing another -START DB2 command.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 9, 18.

DSNT382I IRLM AUTO-START FAILED

Explanation: During the IDENTIFY to IRLM, the AUTO-START of IRLM using SVC 34 failed. This message accompanies abend code X'00E30080'.

System Action: DB2 is terminated with an abend code of X'04E'.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the cause of failure from the SVC 34 return code preserved in register 2.

DSNT383I csect-name IRLM AUTO-STOP FAILED

Explanation: During a sign off from IRLM caused by either DB2 normal shutdown (CSECT DSNTLQUI) or DB2 subsystem termination (CSECT DSNTLCLE), an AUTO-STOP of IRLM using SVC 34 failed. If this occurred during normal sign off, this message accompanies abend reason code X'00E30075'.

System Action: DB2 abends.

Operator Response: Notify the system programmer.

System Programmer Response: Manually stop IRLM.

Problem Determination: Determine the cause of failure from the SVC return code preserved in register 2.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 9.

DSNT384I IRLM AUTO-START WAIT TIME EXCEEDED

Explanation: An attempt was made to automatically start IRLM. However, the wait time specified was exceeded.

System Action: DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Either manually start IRLM or modify the installation-defined auto-start wait time. Restart DB2.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 9.

Check the IRLMID given in the IRLM procedure against the IRLMSID in macro DSN6SPRM which was in the DSNZPARM used at startup.

DSNT386I NAME TYPE PARTS

Explanation: This message forms the headings of a display for a set of messages. This message is always followed by multiple DSNT387I messages. These DSNT387I messages are used to display information

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that is received as a result of a DISPLAY DATABASE command when the keyword OVERVIEW is specified. Refer to message DSNT387I for a description of the data these headings identify.

DSNT387I *space type parts*

Explanation: This message contains the results from a DISPLAY DATABASE command when the keyword OVERVIEW is specified. This message contains data that describes the status of a tablespace or index space in the database that is listed in the preceding DSNT362I message. The data in this message is always preceded by the column headings in message DSNT386I. The message number for this message is not displayed. However, messages DSNT386I, DSNT387I, and DSNT390I are always produced with a multiple line WTO and are never interrupted.

space Tablespace name, index space name, or table OBID.

type TS for a tablespace, IX for an index space, LS for a LOB tablespace, or TB for a table

parts Indicates the number of partitions in the tablespace, index space, or LOB tablespace. It is blank for a simple tablespace, simple index space, or segmented tablespace.

DSNT388I NAME TYPE PART STATUS CONNID CORRID CLAIMINFO

Explanation: This message is the heading for a set of messages that display information as a result of a -DISPLAY DATABASE command when the keyword CLAIMERS is specified. The message number for this message is not displayed. This message is always followed by multiple DSNT389I messages containing the column data. Refer to message DSNT389I for a description of the data these headings identify.

DSNT389I *space type part status conn-id corr-id claims*

Explanation: This message contains the display information that results from a -DISPLAY DATABASE command when the keyword CLAIMERS is specified. This message contains the column data describing the status of a table space or index space in the database listed in message DSNT362I.

space The table space name or index space name.

type TS for a table space, IX for an index space, LS for a LOB table space.

part The partition number. For a nonpartitioned table space or an index on a nonpartitioned table space, it is blank. For nonpartitioned indexes on a partitioned table space, it is the logical partition number preceded by the character L (for example, L0001). For

data-partitioned secondary indexes, the prefix for this value will be the character D (for example, D0001).

status Blank, or one or more of the following, delimited by commas. The maximum length of the string is 17 characters.

ACHKP

The table space is in aux check pending state. ACHKP on a table space indicates that CHECK DATA detected an orphan or missing LOB or an out-of-sync condition between the row in the base table and the LOB in the LOB table space.

ARBDP

Advisory Rebuild Pending status is set when indexes with varying length columns are changed from VARYING NO to VARYING YES.

AREO* The table space is placed in Advisory Reorg status. This may be because of a change in the table or index information. It also occurs because the table space, index, or partition identified in this status should be reorganized for optimal performance.

AREST The object (a table space, index space, or a physical partition of a table space or index space) is in an Advisory Restart Pending state. If backout activity against the object is not already underway, it should be initiated either by issuing the RECOVER POSTPONED command or by recycling the system with the system parameter LBACKOUT=AUTO.

AUXW The table space is in aux warning state. AUXW on a LOB table space indicates that one or more LOBs in the LOB table space is invalid. AUXW on a base table space indicates that CHECK DATA detected an orphan or missing LOB or an out-of-sync condition between the row in the base table and the LOB in the LOB table space.

CHKP The object (a table space or a partition within a table space) is in check pending status.

COPY The object (a table space or a partition within a table space) is in copy pending status. An image copy is required for this object.

GRECP

The object (a table space, a table space partition, index space, or index space partition) is marked recovery pending because of the failure of a group buffer pool. This status value appears only on spaces. It does not

	apply to databases. See <i>DB2 Data Sharing: Planning and Administration</i> for information about resolving this restricted status.		
ICOPY	The object (an index space or index partition) is in informational copy pending status.	STOPP	A stop is pending for the database, table space, table space partition, index space or index space partition.
LPL	The object has pages or ranges of pages that are unavailable because of logical or physical damage.	UT	The table space, table space partition, index space or index space partition is started for utility processing only.
LSTOP	The logical partition is stopped.	UTRO	A utility is in process on the table space, table space partition, index space, or index space partition that allows only RO access.
PSRBD	The index space is in page set rebuild pending status.	UTRW	A utility is in process on the table space, table space partition, index space or index space partition that allows RW access.
RBDP	The object (an index space, index partition or logical index partition) is in rebuild pending status. For logical partitions, the RBDP status can appear as RBDP*.	UTUT	A utility is in process on the table space, table space partition, index space or index space partition that allows only UT access.
RBDP	Indicates that the entire index is inaccessible to SQL applications, however only the logical partition needs to be recovered.	WEPR	This object has pages or ranges of pages that are unavailable because of physical damage. To reset this flag, you can use either the RECOVER utility with the option as ERROR RANGE or the LOAD utility with the option as REPLACE.
RECP	The object (a table space, table space partition, index space, index partition or logical index partition) is in recovery pending status.		
REFP	The object (a table space, a table space partition, index space, or index space partition) is in refresh pending status. For a table space, run LOAD REPLACE or the RECOVER utility to resolve this restricted status, or use the REBUILD INDEX utility to rebuild the index from the data.		If the status for a nonpartitioned index is blank, then the status information is displayed at the logical partition level. If the type is TB, the status is blank.
REORP	The object (a table space or table space partition) is in recovery pending status.	<i>conn-id</i>	A connection identifier for the thread.
RESTP	The object is in the Restart Pending state. Backout activity against the object must be completed by using the -RECOVER POSTPONED command, or by recycling the system with system parameter LBACKOUT=AUTO.	<i>corr-id</i>	A correlation identifier of the thread associated with the space name.
RO	The table space, table space partition, index space or index space partition is started for read-only activity.	<i>claims</i>	The type and duration of currently held claims. The claim is composed of a claim class descriptor and a claim duration descriptor.
RW	The table space, table space partition, index space or index space partition is started for read and write activity.		The claim class descriptor has one of the following values:
STOP	The table space, table space partition, index space or index space partition is stopped.	CS	Cursor stability claim class
STOPE	The table space or index space was implicitly stopped because there is a problem with the log RBA in a page. Message DSNT500I or DSNT501I is issued when the error is detected to indicate the inconsistency.	RR	Repeatable-read claim class
		WR	Write claim class
			The claim duration descriptor describes the duration of the claims as follows:
		A	The claim is held until deallocation.
		C	The claim is held until the next commit point.
		H	The claim is held across commit.

DSNT390I * DISPLAY OF DATABASE name action*

Explanation: This message indicates the end of a set of DSNT391I and DSNT392I messages, a set of DSNT393I and DSNT394I messages, or a set of DSNT395I and DSNT396I messages.

In this message:

- The 'name' is the name of the database.
- The 'action' is one of the following:

CONTINUES

The remaining table space and index space names within this database are continued to a new display.

TERMINATED

The remaining table space and index space names within this database are terminated.

ENDS The display for this database is complete.

**DSNT391I NAME TYPE STATUS PHYERRLOW
PHYERRHI CATALOG PIECE**

Explanation: This message indicates the beginning of a set of messages used to display information as a result of a DISPLAY DATABASE command when the keywords WEPR, LOCKS, LPL, CLAIMERS and USE are omitted. (The message appears in one continuous line across the screen, not as shown above.) This message forms the headings of the display and is always followed by multiple DSNT392I messages containing the column data. Refer to message DSNT392I for a description of the data these headings identify.

DSNT392I *space type part status lo-page hi-page
cat-name piece*

Explanation: This message contains the display information as a result of a DISPLAY DATABASE command when the keywords LOCK, CLAIMERS, LPL and USE are omitted. This message contains the column data describing the status of a table space or index space in the database listed in the preceding DSNT362I message. This message is always preceded by its column headings in message DSNT391I. The message number for this message is not displayed. However, messages DSNT391I, DSNT392I, and DSNT390I are always produced with a multiple line WTO and are never interrupted.

In this message:

- The *space* is the table space name or index space name.
- The *type* is TS for a table space, IX for an index space or LS for a LOB table space.
- The *part* is the partition number. It is blank for a simple table space, simple index space, or segmented table space. For nonpartitioned secondary indexes, it is the logical partition number preceded by the character L (for example, L0001). For data-partitioned secondary indexes, the prefix for this value will be the character D (for example, D0001).
- See DSNT389I for a list of the possible *status* display strings.
- When a data set supporting the specified table space or index space has physical I/O errors, *lo-page* is a hexadecimal number identifying the lowest page

number containing an I/O error. This column is blank if there are no physical errors.

- When a data set supporting the specified table space or index space has physical I/O errors, *hi-page* is a hexadecimal number identifying the highest page number containing an I/O error. This column is blank if there are no physical errors.
- When a data set supporting the specified table space or index space has physical I/O errors, *cat-name* identifies the catalog owning the data set with the I/O errors. This column is blank if there are no physical errors.
- When a data set supporting the specified table space or index space has physical I/O errors, *piece* is an integer number identifying the piece within the table space or index space having the error. This column is blank if there are no physical errors.

The piece number can be used to construct the name of the data set supporting the space containing the physical error as follows:

```
cat-name.DSNDBC.databases
name.space-name.I0001.Axxxx
```

The value xxxx is the piece number plus one and database-name is the name displayed in the preceding DSNT362I message. If the table space or index space is partitioned, the partition number should equal the piece number plus one.

**DSNT393I NAME TYPE PART STATUS CONNID
CORRID USERID**

Explanation: This message indicates the beginning of a set of messages used to display information as a result of a DISPLAY DATABASE command when the keyword USE is specified. This message contains the headings of the display. (The message appears in one continuous line across the screen, not as shown above.) This message is always followed by multiple DSNT394I messages containing the column data. Refer to message DSNT394I for a description of the data these headings identify.

DSNT394I *space type part status conn-id corr-id
user-id*

Explanation: This message contains the display information resulting from a DISPLAY DATABASE command when the keyword USE is specified. This message contains the column data describing the status of a table space or index space in the database listed in the preceding DSNT362I message. This message is always preceded by message DSNT393I containing the column headings. The message number for this message is not displayed. However, messages DSNT393I, DSNT394I, and DSNT390I are always produced with a multiple line WTO and are never interrupted.

In this message:

- The *type* is TS for a table space, IX for an index space or LS for a LOB table space.
- The *type* is TS for a table space or IX for an index space.
- The *part* is the partition number. It is blank for a simple table space, simple index space, or segmented table space. For nonpartitioned secondary indexes, it is the logical partition number preceded by the character L (for example, L0001). For data-partitioned secondary indexes, the prefix for this value will be the character D (for example, D0001).
- See DSNT389I for a list of the possible *status* display strings.
- The *conn-id* is a connection identifier for the thread. It is one of the following:
 - BATCH if the thread is from a batch region.
 - TSO if the thread is from a TSO terminal.
 - UTILITY if the thread is from a utility.
 - 'IMS identifier' if the thread is from an IMS terminal.
 - 'CICS identifier' if the thread is from a CICS terminal.
 - CONSOLE if the thread is from the console.
- The *corr-id* is a correlation identifier of the thread associated with the space name. It is one of the following:
 - 'job name' if the thread is from a batch region.
 - 'TSO logon identifier' if the thread is from a TSO terminal.
 - PST#.PSBNAME if the thread is from an IMS terminal.
 - 'entry ID.thread number.tran id' if the thread is from a CICS terminal.
 - CONSOLE if the thread is from the console.
 - '0nn', where 'nn' is a number , if the thread is for a system agent.
 - For distributed database access threads, this field contains the following:
 - While the thread is being created:
 1. '028.DBAA nn', where nn ranges from 01 to 99. This indicates that the database access agent (DBAA) is in its connection processing, which consists of establishing the DBAA thread, and validating and verifying the user's ID. Refer to "Controlling Access to a DB2 Subsystem" in *DB2 Administration Guide* for descriptions of the authorization checks that might be performed.
All RACF requests are serialized on a single DB2 RACF service task, which might increase the validation time when multiple DBAAs are being created concurr
 - After the thread is created:

1. For threads using system-directed access and threads using application-direct access from a DB2 requester, this variable displays the correlation ID of the thread at the requesting location.
 2. For threads using application-directed access from a non-DB2 requester, this variable displays the first twelve characters in the DDM external name (EXTNAM) parameter of the DDM EXCSAT command received as part of the SQL CONNECT
- The *user-id* is one of the following:
 - 'TSO logon identifier' if the thread is from a TSO terminal.
 - 'sign-on id' or the LTERM if the thread is from an IMS message-drive region.
 - AXBUSER if the thread is from an IMS message-driven region and RACF is used.
 - 'PSB name' if the thread is from an IMS nonmessage-driven region and RACF is not used.
 - 'user-id', 'term id', 'tran id' or other, as specified in the resource control table (RCT), if the thread is from CICS.

**DSNT395I NAME TYPE PART STATUS CONNID
CORRID LOCKINFO**

Explanation: This message indicates the beginning of a set of messages used to display information as a result of a DISPLAY DATABASE command when the keyword LOCKS is specified. This message forms the headings of the display. (The message appears in one continuous line across the screen, not as shown above.) This message is always followed by multiple DSNT396I messages containing the column data. Refer to message DSNT396I for a description of the data these headings identify.

DSNT396I space type part status conn-id corr-id lock

Explanation: This message contains the display information that results from a DISPLAY DATABASE command when the keyword LOCKS is specified. This message contains the column data describing the status of a table space or index space in the database listed in the preceding DSNT362I message. This message is always preceded by its column headings in message DSNT395I. The message number for this message is not displayed. However, the messages DSNT395I, DSNT396I, and DSNT390I are always produced with a multiple line WTO and are never interrupted.

In this message:

- The *space* is the table space name, index space name, or table OBID.
- The *type* is TS for a table space, IX for an index space, LS for a LOB table space or TB for a table.
- The *part* is the partition number. It is blank for a simple table space, simple index space, or

segmented table space. For nonpartitioned secondary indexes, it is the logical partition number preceded by the character L (for example, L0001). For data-partitioned secondary indexes, the prefix for this value will be the character D (for example, D0001).

- See DSNT389I for a list of the possible *status* display strings. If the *type* is TB, the *status* field is blank.
- The *conn-id* is a connection identifier for the thread. It is one of the following:
 - BATCH if the thread is from a batch region.
 - TSO if the thread is from a TSO terminal.
 - UTILITY if the thread is from a utility.
 - 'IMS identifier' if the thread is from an IMS terminal.
 - 'CICS identifier' if the thread is from a CICS terminal.
 - CONSOLE if the thread is from the console.

When the displayed lock is a P-lock or a retained lock, *conn-id* is not specified.

- The *corr-id* is a correlation identifier of the thread associated with the space name. It is one of the following:
 - 'job-name' if the thread is from a batch region.
 - 'TSO logon identifier' if the thread is from a TSO terminal.
 - PST#.PSBNAME if the thread is from an IMS terminal.
 - 'entry ID.thread number.tran id' if the thread is from a CICS terminal.
 - CONSOLE if the thread is from the console.
 - For distributed database access threads, this field contains the following:
 - While the thread is being created:
 1. '028.DBAA nn', where nn ranges from 01 to 99. This indicates that the database access agent (DBAA) is in its connection processing, which consists of establishing the DBAA thread, and validating and verifying the user's ID. Refer to "Controlling Access to a DB2 Subsystem" in *DB2 Administration Guide* for descriptions of the authorization checks that might be performed.
All RACF requests are serialized on a single DB2 RACF service task, which might increase the validation time when multiple DBAAs are being created concurr
 - After the thread is created:
 1. For threads using system-directed access and threads using application-direc access from a DB2 requester, this variable displays the correlation ID of the thread at the requesting location.

2. For threads using application-directed access from a non-DB2 requester, this variable displays the first twelve characters in the DDM external name (EXTNAM) parameter of the DDM EXCSAT command received as part of the SQL CONNECT

corr-id is not specified when the displayed lock is a P-lock or a retained lock.

- The *lock* describes the type and duration of locks:
 - Transaction locks (also called L-locks) are identified by their correspondin agents' connection and correlation IDs
Multiple locks held by an agent are listed on multiple lines of the report followed by any locks the agent is currently awaiting.
 - Physical locks (P-locks) and retained locks are identified by their DB2 data sharing member names.
Multiple P-locks or retained locks held by a DB2 data sharing member are listed on multiple lines of the report followed by any locks the member is currently awaiting.

The *lock* is composed of a 'lock status' and followed by a dash '-', a 'lock state' followed by a 'lock type', and a 'lock duration' delimited by commas.

- The 'lock status' is a value of:

- H** The lock is held by the agent or the DB2 member.
- W** The agent or the member is awaiting the lock.
- R** The lock is retained.

- The 'lock state' describes themode of the lock as follows:

- For L-locks and drain locks,

- IS** A lock with read intentions.
- IX** A lock with update intentions.
- S** A lock with read-only capability.
- U** A lock with update capability.
- SIX** A table space or table lock with a protocol that does not lock a page while reading, but locks the page with update intention while updating.

- X** An exclusive lock.

- For L-locks on LOB table spaces,

- IS** A lock with intent to reserve space within the LOB table space
- IX** A lock with intent to insert LOBs in the LOB table space.
- S** A lock which reserves space within the LOB table space.

- SIX** A lock which allows the owner to read and update LOBs.
- X** An exclusive lock.
- For P-locks,
 - IS** This DB2 member has R/O interest. The page set or partition is group buffer pool (GBP) dependent.
 - IX** This DB2 member has R/W interest. The page set or partition is GBP-depende
 - S** This DB2 member has R/O interest. The page set or partition is not GBP-dep
 - SIX** This DB2 member has R/W interest. The page set or partition is GBP-depende
 - NSU** This DB2 member has R/W interest. The page set or partition is GBP-depende
 - X** This DB2 member has R/W interest. The page set or partition is not GBP-dep
- The 'lock type' describes the type of locking as follows:
 - S** A table space L-lock
 - T** A table L-lock
 - C** A cursor-stability read drain lock
 - R** A repeatable-read drain lock
 - W** A write drain lock
 - P** A partition L-lock
 - PP** A page set or partition P-lock
- If the 'lock status' is H, the 'lock duration' describes the duration of the lock:
 - A** The lock is freed at deallocation.
 - C** The lock is freed at commit.
 - H** The lock is freed when all cursors are closed.
 - M** The lock is freed by the system.
 - P** The lock is freed when the plan is complete.
 - I** The lock is a page set or partition P-lock. It is released when the pageset or partition data set is closed.
- If the 'lock status' is W, the 'lock duration' is a 2-digit number indicating the waiter's position in the local DB2 system's lock waiting queue. When this lock is acquired, its duration is the same as all locks held by the user.

- For a P-lock, the lock is owned by the system, not the user, and its duratio is not related to the duration of the locks that are owned by the user.
- Retained locks do not have a lock duration.

All index spaces on tables are implicitly locked with transaction locks at the same level as the table spaces containing those tables. P-locks are acquired by DB2 on index spaces as well as on table spaces.

DSNT397I

Explanation: This message indicates the beginning of a multiple line display generated as a result of a DISPLAY DATABASE command. The format of this multiple line display has three parts:

- The column headers, which are dependent on the keywords issued. The headers are underlined.
- The space information for all spaces and partitions requested by the command
- An ending message to state whether the spaces were displayed or not.

There are six different headers for the DISPLAY DATABASE commands. The headers are dependent on the presence of the keywords: CLAIMERS, LOCKS, USE, LPL, OVERVIEW, or no keyword. These five different DISPLAY DATABASE command formats are described below.

- **DISPLAY DATABASE CLAIMERS**

This DISPLAY DATABASE command displays the claims that are on certain table spaces, index spaces, and partitions.

The column headers in this command are as follows:

```
NAME TYPE PART STATUS CONNID CORRID
CLAIMINFO
```

- **NAME** is the table space name or index space name.
- **TYPE** is TS for a table space, IX for an index space, LS for a LOB table space.
- **PART** is the partition number. It is blank for a simple table space or simple index space. For nonpartitioned indexes on a partitioned table space, it is the logical partition number preceded by the character L (for example, L0001). For data-partitioned secondary indexes, the prefix for this value will be the character D (for example, D0001).
- See DSNT389I for a list of the possible *status* display strings.
- For L-locks on LOB table spaces,
 - IS** A lock with intent to reserve space within the LOB table space
 - IX** A lock with intent to insert LOBs in the LOB table space.
 - S** A lock which reserves space within the LOB table space.

- SIX** A lock which allows the owner to read and update LOBs.
- X** An exclusive lock.

If the *type* is TB, the *status* field is blank.

If the status for an index is blank, then the status information is displayed at the logical partition level.

- The CONNID is a connection identifier for the thread. It is one of the following:
 - BATCH if the thread is from a batch region.
 - TSO if the thread is from a TSO terminal.
 - UTILITY if the thread is from a utility.
 - 'IMS identifier' if the thread is from an IMS terminal.
 - 'CICS identifier' if the thread is from a CICS terminal.
 - CONSOLE if the thread is from the console.
 - For distributed database access threads, this field contains the following:
 - For threads using system-directed access and for threads using application-directed access from a DB2 Version 3 or later requester, this variable displays the connection name of the thread at the requesting location.
 - For threads using application-directed access from a non-DB2 requester or from a DB2 Version 2 Release 3 requester, this field displays the constant SERVER.
- CORRID is a correlation identifier of the thread associated with the space name. It is one of the following:
 - 'job name' if the thread is from a batch region.
 - 'TSO logon identifier' if the thread is from a TSO terminal.
 - PST#.PSBNAME if the thread is from an IMS terminal.
 - 'entry ID.thread number.tran id' if the thread is from a CICS terminal.
 - CONSOLE if the thread is from the console.
 - '0nn', where 'nn' is a number, if the thread is for a system agent.
 - For distributed database access threads, this field contains the following:
 - While the thread is being created:
 1. '028.DBAA nn', where nn ranges from 01 to 99. This indicates that the database access agent (DBAA) is in its connection processing, which consists of establishing the DBAA thread, and validating and verifying the user's ID. Refer to "Controlling Access to a DB2 Subsystem" in *DB2 Administration Guide* for

descriptions of the authorization checks that might be performed.

All RACF requests are serialized on a single DB2 RACF service task, which might increase the validation time when multiple DBAAs are being created concurr

- After the thread is created:
 1. For threads using system-directed access and threads using application-direct access from a DB2 requester, this variable displays the correlation ID of the thread at the requesting location.
 2. For threads using application-directed access from a non-DB2 requester, this variable displays the first twelve characters in the DDM external name (EXTNAM) parameter of the DDM EXCSAT command received as part of the SQL CONNECT

- CLAIMINFO is the type and duration of currently held claims. The claim is composed of a claim class descriptor and a claim duration descriptor.

The claim class descriptor has one of the following values:

- CS** Cursor stability claim class
- RR** Repeatable-read claim class
- WR** Write claim class

The claim duration descriptor describes the duration of the claims as follows:

- A** The claim is held until deallocation.
- C** The claim is held until the next commit point.
- H** The claim is held across commit.

• DISPLAY DATABASE LOCKS

This DISPLAY DATABASE command displays the locks that are on certain table spaces, index spaces and partitions.

The column headers in this command are as follows:

NAME TYPE PART STATUS CONNID CORRID LOCKINFO

- The NAME column states the table space name, index space name, or table object ID.
- The TYPE column states TS for table space, IX for index, or TB for table.
- The PART, STATUS, CONNID, and CORRID columns are described in the DISPLAY DATABASE CLAIMERS section.
- The *conn-id* and *corr-id* are not specified when the display lock is a P-lock or a retained lock (either L-lock or P-lock). For page set P-locks, the DB2 member name is used to identify the lock.
- The LOCKINFO describes the type and duration of locks used by corresponding agents identified by their connection and correlation IDs (for transaction locks, which are also called L-locks) or

used by corresponding subsystems identified by their DB2 data sharing member names (for physical locks, which are called P-locks, and retained locks). Multiple locks held by an agent are listed on multiple lines of the report followed by any locks the agent is currently awaiting. Multiple P-locks or retained locks held by a DB2 data sharing member are listed on multiple lines of the report followed by any locks the member is currently awaiting. The LOCKINFO consists of a 'lock status', followed by a dash '-', a 'lock state', a 'lock type' and a 'lock duration' delimited by commas.

- The 'lock status' is a value of:

- H** The lock is held by the agent or the DB2 member.
- W** The agent or the member is awaiting the lock.
- R** The lock is retained.

- The 'lock state' describes the mode of lock as follows:

- For L-locks and drain locks,
 - IS** A lock with read intentions.
 - IX** A lock with update intentions.
 - S** A lock with read-only capability.
 - U** A lock with update capability.
 - SIX** A lock with a protocol that does not lock a page while reading, but locks the page with update intention while updating.
 - X** An exclusive lock.
- For P-locks,

- IS** This DB2 member has R/O interest. The page set or partition is group buffer pool (GBP) dependent.
- IX** This DB2 member has R/W interest. The page set or partition is GBP-depend
- S** This DB2 member has R/O interest. The page set or partition is not GBP-dependent.
- SIX** This DB2 member has R/W interest. The page set or partition is GBP-depend
- NSU** This DB2 member has R/W interest. The page set or partition is GBP-depend
- X** This DB2 member has R/W interest. The page set or partition is not GBP-dependent.

- The 'lock type' describes the type of locking as follows:

- S** A table space L-lock
- T** A table L-lock
- C** A cursor-stability read drain lock

R A repeatable-read drain lock

W A write drain lock

P A partition L-lock

PP A page set or partition P-lock

- If the 'lock status' is H, the 'lock duration' describes the duration of the lock:

A The lock is freed at deallocation.

C The lock is freed at commit.

H The lock is freed when all cursors are closed.

M The lock is freed by the system.

P The lock is freed when the plan is complete.

I The lock is a page set or partition P-lock. It is released when the page set or partition data set is closed.

- If the 'lock status' is W, the 'lock duration' is a 2-digit number indicating the waiter's position in the local DB2 system's lock waiting queue. When this lock is acquired, its duration is the same as all locks held by the user.

- For a P-lock, the lock is owned by the system, not the user, and its duration is not related to the duration of the locks that are owned by the user.

- Retained locks do not have a lock duration.

There are no explicit index space locks. However, all index spaces on tables are implicitly locked at the same level as the table spaces containing those tables. P-locks are acquired by DB2 on index spaces as well as on table spaces.

• DISPLAY DATABASE USE

This DISPLAY DATABASE command displays the user IDs that are accessing certain table spaces, index spaces, and partitions.

The column headers in this command are as follows:

```
NAME TYPE PART STATUS CONNID CORRID
USERID
```

- The NAME, TYPE, PART, STATUS, CONNID, and CORRID columns are described in the DISPLAY DATABASE CLAIMERS section.

- The USERID is one of the following:

- 'TSO logon identifier' if the thread is from a TSO terminal.
- 'sign-on id' or the LTERM if the thread is from an IMS message-drive region.
- AXBUSER if the thread is from an IMS message-driven region and RACF is used.
- 'PSB name' if the thread is from an IMS nonmessage-driven region and RACF is not used.

- 'userid', 'term id', 'tran id' or other, as specified in the resource control table (RCT), if the thread is from CICS.

• DISPLAY DATABASE LPL

NAME TYPE PART STATUS LPL PAGES

This message contains the display information resulting from a DISPLAY DATABASE command when the keyword LPL is specified. It contains the column data describing the status of a table space or index space in the database listed in the preceding DSNT362I message. This message is always preceded by its column headings message DSNT805I. The message number for this message is not displayed.

In this message:

- The LPL PAGES column lists the pages in the specified *space* that are unavailable because of logical or physical damage.

• DISPLAY DATABASE (with no LOCKS, USE, LPL or CLAIMERS keyword).

This DISPLAY DATABASE command displays the error page range information for certain table spaces, index spaces, and partitions.

The column headers in this command are as follows:

NAME TYPE PART STATUS PHYERRLO PHYERRHI
CATALOG PIECE

In this message:

- The NAME, TYPE, PART, and STATUS columns are described in the DISPLAY DATABASE CLAIMERS section.
- When a data set supporting the specified table space or index space has physical I/O errors, PHYERRLO is a hexadecimal number identifying the lowest page number containing an I/O error. This column is blank if there are no physical errors.
- When a data set supporting the specified table space or index space has physical I/O errors, PHYERRHI is a hexadecimal number identifying the highest page number containing an I/O error. This column is blank if there are no physical errors.
- When a data set supporting the specified table space or index space has physical I/O errors, CATALOG identifies the catalog owning the data set with the I/O errors. This column is blank if there are no physical errors.
- When a data set supporting the specified table space or index space has physical I/O errors, PIECE is an integer number identifying the piece within the table space or index space having the error. This column is blank if there are no physical errors.

The piece number can be used to construct the name of the data set supporting the space containing the physical error as follows:

cat-name.DSNUBC.database-
name.space-name.I0001.Axxxx

The value xxxx is the piece number plus one and database-name is the name displayed in the preceding DSNT362I message. Note that if the table space or index space is partitioned, the partition number should equal the piece number plus one.

There are other informational messages that can be displayed that are not related to one specific keyword. They are listed below:

• -luw-id ACCESSING DATA FOR location

This message is issued for each thread reported that is participating in distributed data access (database access thread). The thread that corresponds to this message is the thread named by the correlation id and connection id of the data line preceding this message. This additional line reports the distributed identification as follows:

luw-id=token

The logical-unit-of-work identifier (LUW-ID) is a unique identifier that is assigned to the thread followed by an '=' sign and a token. The token can be used in place of luw-id in any DB2 command that accepts luw-id as input.

location

The LOCATION name assigned to the requesting site.

• -MEMBER NAME *member-name*

This message is issued with messages DSNT389I, DSNT394I or DSNT396I for each thread in a data sharing environment. This additional line reports the member name of the DB2 subsystem accessing this object.

If the characters '(CO)' follow the member name, then this member is the castout owner for the page set or partition. The castout owner for a page set or partition is the DB2 member responsible for doing all of the castout I/O for that page set or partition.

The message number and subsystem recognition character are not included in this message.

• INVALID space-name

The space-name specified in the SPACENAM keyword on the -DISPLAY DATABASE command does not exist. The name of the table space or index space is 'space-name'. The request is rejected.

• NO SPACES FOUND

This message is produced when a DISPLAY DB(name) SPACENAM is entered and no spaces were found to satisfy the request. SPACENAM(...) might have been entered as a range, a subset, or a list of spaces.

• spacetype name NOT type

This message is produced when no table space or index space listed in the DISPLAY DB(...) SPACENAM(...) satisfies your request.

spacetype

TABLESPACE if the space is a table space or INDEXSPACE if the space is an index space.

name The name of the space.

type A character string that indicates the type of request specified. The string is a list of the following, delimited by 'OR':

- ACTIVE if the keyword ACTIVE is specified
- RESTRICTED if the keyword RESTRICT is specified.

- NO INFORMATION AVAILABLE

This message is produced when there is no LOCK or USE information available. When DISPLAY DB(...) is entered, and DB(...) is a list of databases or a list of names, this message indicates that no listed database has LOCK or USE information available.

If DISPLAY DB(...) or DISPLAY DB(...) SPACENAM(*) is entered, and DB(...) is a range or subset of databases, or all databases (*), this message indicates that no databases, for which the invoker has authority to display, have LOCK or USE information available. This message is produced only when the keywords USE and LOCKS are specified.

The ending message looks like this:

* DISPLAY OF DATABASE name action *

In this message:

name The name of the database

action One of the following:

CONTINUES

The remaining table space and index space names within this database are continued to a new display.

TERMINATED

The remaining table space and index space names within this database are terminated.

ENDS The display for this database is complete.

DSNT398I

Explanation: This message appears within a multiple line WTO message set and precedes DSNT391I, DSNT393I, and DSNT395I. It is used to underscore the column headings.

This message is issued by CSECT: DSNTDMUL

DSNT399I INVALID space-name

Explanation: The space-name specified in the SPACENAM keyword on the -DISPLAY DATABASE command does not exist. The name of the table space or index space is 'space-name'. The request is rejected.

DSNT400I SQLCODE = 0, SUCCESSFUL EXECUTION

Explanation: The SQLCODE was 0, indicating successful execution of the function. SQLWARN indicators may note some warnings. SQLWARNx fields are described in Appendix C of *DB2 SQL Reference*.

DSNT401I DSNT401I WARNING - HELP IS NOT INSTALLED

Explanation: You invoked the installation process with the DSNTINST CLIST. To enable online help, you must use the DSNTINS0 CLIST instead of the DSNTINST CLIST.

This message is issued by panel: DSNTIPA1

System Action: The panel is displayed with the warning message.

User Response: No response is necessary if you do not desire online help for the panel. Press ENTER to continue with the installation process after filling in desired panel values. If panel help is desired: exit this panel, make sure BookManager or the online help reader is installed on your system, and invoke the installation process with the DSNTINS0 CLIST.

DSNT402I ONLINE BOOK DATA SET NAMES MUST END IN '.BOOK'

Explanation: All book names entered on this panel must end in ".BOOK".

This message is issued by panel: DSNTIPA0

System Action: The panel is redisplayed with the error message.

User Response: Replace the book name or names with a value that ends in ".BOOK".

DSNT404I SQLCODE = xxx, explanation

Explanation: This message contains an SQL return code and a brief explanation, with text inserted from the SQLERRM field. The SQL return code is positive, indicating a warning condition. For more information about this SQL return code, see Part 2, "SQL return codes," on page 11.

System Programmer Response: Determine the cause for the SQL warning code, and correct the situation if needed. Rerun the application program or SQL statement.

DSNT405E csect-name DISPATCH PRIORITIES NOT IN SYNC: ccccc1: hhh1 COMPARED TO ccccc2: hhh2

Explanation: The dispatch priorities of task 'cccccc1' (dispatch priority 'hhh1') and task 'cccccc2' (dispatch priority 'hhh2') are found to be incorrect in relation to each other. This can cause severe performance problems and possible failure of either task 'cccccc1', task 'cccccc2', or other tasks.

System Action: DB2 continues with possible problems described above.

Operator Response: Notify the system programmer.

System Programmer Response: Modify the dispatch priority algorithms for the two tasks to meet documented requirements. For instance, IRLM must have a higher dispatch priority than DB2.

DSNT406I THE ART/ORT ESCAPE CHARACTER CANNOT BE % OR _

Explanation: You specified the percent sign (%) or the underscore character (_) as the application registration table/object registration table (ART/ORT) escape character. The ART/ORT escape character can be any other character.

System Action: The panel is redisplayed and the cursor is placed on the field that produced the error.

User Response: Change the ART/ORT escape character value.

DSNT407I THIS FIELD HAS AN INVALID FORMAT

Explanation: The field must be NOLIMIT, 1440, 0, or minutes and seconds separated by a comma.

This message is issued by the following panel: DSNTIPA

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Correct the input.

DSNT408I SQLCODE = -xxx, explanation

Explanation: This message contains an SQL return code and a brief explanation, with text inserted from the SQLERRM field. The SQL return code is negative, indicating that an error has occurred. For more information about this SQL return code, see Part 2, "SQL return codes," on page 11.

System Programmer Response: Determine the cause for the SQL error by using information about that specific SQLCODE. Correct the error if desired. Rerun the application program or SQL statement.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem

determination," on page 1353: 1, 2, 5, 14, 17.

DSNT409I BUFFERPOOL SIZES SHOWN MAY BE OBSOLETE

Explanation: The buffer pool sizes shown here were set at installation or migration time and might not be the most current. Updates might have occurred using the ALTER BUFFERPOOL command.

System Action: Processing continues.

User Response: No response is required.

DSNT410I THE SUBSYSTEM COMMAND PREFIX ENTERED IS INCORRECT

Explanation: You entered an incorrect command prefix. The first character of the command prefix must be one of the following:

@	\$	#	.	/	'	?	"	%	!	<
)	*	+	-	=	¢	:	_	;		

The remaining characters of the command prefix must be one of the above, A-Z, or 0-9.

This message is issued by the following panel: DSNTIPM

System Action: The panel is redisplayed and the cursor is placed on the field in error

User Response: Enter a valid command prefix

DSNT411I SQLCAID = xxxx, SQLCA IDENTIFIER

Explanation: The SQLCA ID field (SQLCAID) is not the expected value, C'SQLCA'.

System Programmer Response: The SQLCA area is invalid. This type of error is usually the result of one of the following:

- Calling the DSNTIAR formatting routine before an SQL statement initializes the area
- Overlaying the SQLCA area
- Passing the wrong address to the DSNTIAR routine.

Correct the error, and rerun the application program.

DSNT412I SQLCABC = xxxx, SQLCA BYTE COUNT

Explanation: The size of the SQLCA is not the expected value (136 bytes).

System Programmer Response: The SQLCA area is invalid. Correct the error. It is probably an overlay or an incorrect SQLCA address. Rerun the application program.

DSNT413I SQLCODE = xxxx, INVALID SQLCODE

Explanation: The SQL return code is not a valid value.

System Programmer Response: Either the SQLCA area is invalid or the maintenance was not coordinated correctly. As a result, the SQL return code was added to the DB2 subsystem but not to the formatting routine.

An invalid SQLCA area is usually the result of one of the following:

- Calling the DSNTIAR formatting routine before an SQL statement initializes the area
- Overlaying the SQLCA area
- Passing the wrong address to the DSNTIAR routine.

If the maintenance was not coordinated correctly, the DSNTIAR and DSNTIAM CSECTs were probably not replaced in the code that is now running. Link-edit the load module, and replace DSNTIAR and DSNTIAM. Correct the error, and rerun the application program.

DSNT414I SQLERRM = xxxx, SQLCA ERROR MESSAGE INSERTION TEXT

Explanation: This message results from an SQL return code that is not recognized by DSNTIAR. SQLERRM contains error message text.

System Programmer Response: Either the SQLCA area is invalid or the maintenance was not coordinated correctly. As a result, the SQL return code was added to the DB2 subsystem but not to the formatting routine.

An invalid SQLCA area is usually the result of one of the following:

- Calling the DSNTIAR formatting routine before an SQL statement initializes the area
- Overlaying the SQLCA area
- Passing the wrong address to the DSNTIAR routine.

If the maintenance was not coordinated correctly, the DSNTIAR and DSNTIAM CSECTs were probably not replaced in the code that is now running. Link-edit the load module, and replace DSNTIAR and DSNTIAM. Correct the error, and rerun the application program.

DSNT415I SQLERRP = xxxx, SQL PROCEDURE DETECTING ERROR

Explanation: The name of the procedure detecting the error is provided in the SQLERRP.

System Programmer Response: (The SQL procedure detecting the error may be of help in diagnosing an error or warning.) Correct the error if there is one noted in other messages. Rerun the program or SQL statement.

DSNT416I SQLERRD = xx,xx,xx,xx,xx,xx SQL DIAGNOSTIC INFORMATION

Explanation: At least one of the six diagnostic fields is not the expected value. The expected values are:

- 00, 00, 00, 00, 00, 00 or
- 00, 00, 00, -1, 00, 00

The SQL diagnostic information for each of the six values is as follows:

- 1 DB2 unique internal relational data system code
- 2 DB2 internal data manager error code
- 3 One of the following:
 - Number of rows inserted, updated, or deleted following an INSERT, UPDATE, or DELETE statement

Note: A '-1' in this field indicates that a mass delete of a table in a segmented table space was performed, wherein DB2 does not access nor count individual rows.

- For SQLCODE -911 or -913, a reason code that indicates whether a deadlock or timeout occurred.

Note: The most common reason codes are:

- 00C90088 - deadlock
- 00C9009E - timeout

- 4 Reserved
- 5 Position or column of a syntax error for PREPARE or EXECUTE IMMEDIATE
- 6 DB2 internal buffer manager error code

System Programmer Response: Refer to Appendix C of *DB2 SQL Reference* for further information on the contents of the SQLERRD fields. The SQL diagnostic information may be of help in diagnosing an error or in indicating the results of successful execution. If this error or warning should not occur, correct the error. Rerun the program or SQL statement.

DSNT417I SQLWARNn-n SQL WARNINGS

Explanation: At least one of the 11 warning values is not the expected value (a blank). A nonblank value in one of the 11 warning fields has the following meaning:

SQLWARN0
Any other warning code is set.

SQLWARN1
String truncation.

SQLWARN2
Null value(s) eliminated.

SQLWARN3
Number of host variables provided did not equal degree of the table.

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SQLWARN4

No WHERE clause on UPDATE or DELETE.

SQLWARN5

Not a DB2 SQL statement.

SQLWARN6

Date or timestamp value adjusted.

SQLWARN7

Conversion of decimal number from precision 31 to precision 15 caused truncation of fractional digits.

SQLWARN8

Untranslatable character replaced with substitute.

SQLWARN9

Arithmetic exceptions have been ignored during processing of COUNT DISTINCT.

SQLWARNA

At least one character field of the SQLCA is invalid due to a string translation error.

User Response: The SQL warning information may be of help in diagnosing an error or in indicating the results of successful execution. If this warning should occur, correct the error and rerun the program or SQL statement.

DSNT418I SQLSTATE = sqlstate, SQLSTATE RETURN CODE

Explanation: The SQLSTATE is a return code that indicates the outcome of the most recently executed SQL statement. The execution of every SQL statement sets SQLSTATE to a five-digit code in the range of 00000 to 65535. This has no effect on the existing use of any other field in the SQLCA.

User Response: For further information on the meaning of an SQLSTATE return code, see the Part 2, "SQL return codes," on page 11. If necessary, correct the SQL statement and return it.

DSNT419I WARNING - MAX REMOTE ACTIVE PREVIOUSLY SPECIFIED AS 0.

Explanation: You specified a value of 0 for the number of active database access threads on a previous panel. This value might be inconsistent with a DDF STARTUP OPTION of AUTO or COMMAND.

This message is issued by the following panel: DSNTIPR

Severity: 4 (warning)

System Action: The panel is redisplayed and the cursor is placed on the DDF STARTUP OPTION field.

User Response: No response is necessary if your intent is to have DDF started with no active database access threads allocated and DDF is used as a

requester only. Press ENTER to continue. Otherwise, either change the DDF STARTUP OPTION to NO or MAX REMOTE ACTIVE to the number of threads you want.

DSNT420I YOU NEED AT LEAST 1 32K DS IF THE TEMP 32K SPACE IS GREATER THAN 0

Explanation: You entered zero for the TEMP 32K DATA SETS field on the SIZES panel. You need at least one TEMP 32K DATA SET if TEMP 32K SPACE on DSNTIPD is not zero.

This message is issued by the following panel: DSNTIPD

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Enter a value of one or greater for the TEMP 32K DATA SETS field or change the TEMP 32K SPACE value to zero.

DSNT421I YOU NEED AT LEAST 1 32K BUFFER FOR THE <num32kds> 32K DATA SETS

Explanation: You specified zero for the 32KB buffers. If field TEMP 32K DATA SETS on installation panel DSNTIPD is greater than zero, you need at least one 32KB buffer on installation panel DSNTIP2.

This message is issued by the following panel: DSNTIP2

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Enter a value of 1 or more for at least one of the buffer pools (BP32K - BP32K9) on panel DSNTIP2, or change the TEMP 32K DATA SETS value to zero.

DSNT422I THE ART TABLE NAME MUST BE DIFFERENT FROM THE CRT TABLE NAME

Explanation: You entered the same name for the Application Registration Table and the Object Registration Table on the Data Definition Control Support panel.

This message is issued by the following panel: DSNTIPZ

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change either the APPL REGISTRATION TABLE field or the OBJT REGISTRATION TABLE field to make these two fields unique with respect to each other.

DSNT424I OUTPUT DATA SETS MUST BE DIFFERENT FROM THE INPUT DATA SETS

Explanation: You specified an output data set name that is the same as one of the input data set names built from the PREFIX and SUFFIX fields on the main panel DSNTIPA1.

This message is issued by the following panel:
DSNTIPT

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Either change the data set name under the cursor or change the PREFIX or SUFFIX fields on panel DSNTIPA1.

DSNT425I ALL THREE OUTPUT DATA SETS MUST BE UNIQUE

Explanation: You specified the same name for two or more of the output data sets.

This message is issued by the following panel:
DSNTIPV

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change the data set name under the cursor or the data set field(s) that are the same as the one under the cursor.

DSNT426I ALL THREE DATA SETS ARE REQUIRED FOR OUTPUT

Explanation: You specified one or more output data sets and left one or more output data set fields blank.

This message is issued by the following panel:
DSNTIPT

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: You must specify all or none of the output data set fields. Leave blank all output data set fields if you do not want the installation CLIST to edit any CLISTs or JCL.

DSNT427I THE DATA SET OR MEMBER SPECIFIED COULD NOT BE LOCATED

Explanation: The input parameter member for the INPUT MEMBER NAME field or the DATA SET NAME(MEMBER) field for migration could not be found.

This message is issued by the following panel:
DSNTIPA1

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Verify that you entered an existing

data set and member in that data set. Also verify that the data set is cataloged.

DSNT428I WHEN USING TIMESTAMPS, THE PREFIX MUST BE <= *preflen* CHARACTERS LONG

Explanation: YOU HAVE ENTERED AN ARCHIVE LOG PREFIX LONGER THAN ALLOWED. The archive log prefix names must not exceed 19 characters when the TIMESTAMP ARCHIVES value is YES and must not exceed 17 characters when the TIMESTAMP ARCHIVES value is EXT.

This message is issued by the following panel:
DSNTIPH

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Reduce the length of the prefix or change the TIMESTAMP ARCHIVES value to NO.

DSNT429I THE SUM OF MAX USERS AND MAX REMOTE ACTIVE MUST BE <= TO 5000

Explanation: The total number of threads determined by MAX USERS and MAX REMOTE fields is too large.

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Reduce the MAX USERS field, or the MAX REMOTE field, or both.

DSNT430I THIS FIELD MAY ONLY BE FILLED IN FOR MIGRATE MODE

Explanation: You can only specify the FROM RELEASE or DATA SET NAME(MEMBER) fields for INSTALL TYPE of MIGRATE.

This message is issued by the following panel:
DSNTIPA1

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change the INSTALL TYPE to MIGRATE or blank out the field under the cursor.

DSNT431I DDF, MIXED DATA, OR DEF ENCODING SCHEME CONFLICTS WITH CODED CHAR SET

Explanation: You have entered an invalid EBCDIC or ASCII coded character set (CCSID) value for the DDF, MIXED DATA, or DEF ENCODING SCHEME value you specified. The following restrictions apply to these values:

- With a MIXED DATA value of 'YES', you must choose a valid mixed CCSID value for the EBCDIC CODED CHAR SET. The ASCII CODED CHAR SET must be a valid mixed value or zero.

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- With a MIXED DATA value of 'NO', you must choose a valid SBCS CCSID value or zero for EBCDIC or ASCII CODED CHAR SETs.
- With a DDF value of 'AUTO' or 'COMMAND', you must choose a non-zero value for the EBCDIC CODED CHAR SET.
- With a DEF ENCODING SCHEME value of 'ASCII', you must choose non-zero values for EBCDIC and ASCII CODED CHAR SETs.

Refer to Appendix C of *DB2 Installation Guide* for a list of the best general CCSID for each country.

This message is issued by the following panels:
DSNTIPF, DSNTIPR

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Correct either the DDF, MIXED DATA, or DEF ENCODING SCHEME value or the EBCDIC or ASCII CODED CHAR SET value to correct the incompatibility.

DSNT433I MAX REMOTE ACTIVE MUST BE <= MAX REMOTE CONNECTED.

Explanation: The number of active database access threads cannot be larger than the number of concurrent database access threads.

This message is issued by the following panel:
DSNTIPE

Severity: 8 (error)

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Reduce the MAX REMOTE ACTIVE field, increase the MAX REMOTE CONNECTED field, or both.

DSNT434I WARNING, DATA SETS MARKED WITH ASTERISKS EXIST AND WILL BE OVERWRITTEN

Explanation: The data sets marked with asterisks already exist. If you continue, the installation process will delete the existing data set and allocate a new one for tailored job output.

This message is issued by the following panel:
DSNTIPT

Severity: 4

User Response: You should:

1. Press ENTER to continue; the data set(s) will be deleted and reallocated OR
2. Press RETURN to leave the installation process; the data set(s) will not be deleted OR

3. Change the data set name(s); the new name will be checked for existence.

DSNT435I DSNT435I OVERRIDE VALUES ARE IN EFFECT

Explanation: Calculated values for EDMPOOL, SORTPOOL, or RIDPOOL on panel DSNTIPC were previously overridden. Installation uses any override values displayed.

Severity: 4

System Action: Override values are used instead of calculated values, when displayed.

User Response: No response is necessary if you want to use the override values. If you want to use the calculated values, erase the values in the override column.

DSNT436I REGION SIZE MAY BE TOO LARGE

Explanation: The numbers you specified produced a region size estimate of more than 5000KB. This region size estimate does not include the storage required for SWA because it is assumed that SWA has been placed above the line. If a larger private area is permitted, you should increase the region size on the DB2 start procedures. The region size calculation is shown in the DSNT485I through DSNT487I messages and is discussed in Part 2 of *DB2 Installation Guide*.

This message is issued by the following installation CLIST: DSNTINST

Severity: 4 (warning)

System Action: The CLIST continues.

User Response: Check the values entered for numbers of concurrent users and databases, buffers, and plan sizes. Check the available private region size. If this region size is not permitted, these numbers need to be reduced. If the size is permitted, this warning can be ignored.

Problem Determination: If you suspect an error in the process, set CONTROL(CONLIST) and invoke the CLIST. This produces tracing for error documentation.

DSNT437I REGION SIZE IS TOO LARGE

Explanation: The numbers you specified produced a region size estimate of more than 8000KB. This estimate does not include the storage required for SWA, because it is assumed that you placed SWA above the 16MB line. The region size calculation is discussed in Part 2 of *DB2 Installation Guide*.

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST continues, but does not produce edited jobs.

User Response: Check the numbers entered for numbers of concurrent users and databases, buffers, and plan sizes. One or more of these numbers needs to be reduced.

Problem Determination: If you suspect an error in the process, set CONTROL(CONLIST) and invoke the CLIST. This produces tracing for error documentation.

DSNT438I WARNING, IRLM LOCK MAXIMUM SPACE = *irlmreg* G, AVAILABLE SPACE = *irlmax* G

Explanation: You specified a maximum number of locks per user that could use a total space larger than that available to the IRLM, causing it to abend. It is not likely that all threads will have the maximum number of locks, but if the maximum exceeds the amount of space by a significant factor, the possibility of abends in the IRLM is increased.

The available space is specified in the MAX STORAGE FOR LOCKS field of the DSNTIPJ installation panel, and is never less than 2 GB. The maximum space used is estimated as the sum of the MAX USERS and MAX REMOTE ACTIVE values from the DSNTIPE panel times the number of LOCKS PER USER value on the DSNTIPJ panel times 540 bytes per lock.

Severity: 4 (warning)

System Action: The CLIST will continue.

User Response: Choose one of the following responses:

- Ensure that you can run with the overcommitment of lock address space, or
- Lower the value(s) of the MAX USERS, MAX REMOTE ACTIVE, or LOCKS PER USER fields, or
- Increase the value of the MAX STORAGE FOR LOCKS field.

DSNT439I IRLM NO LOCK ESCALATION OR NO USER MAXIMUM

Explanation: You specified the number 0 for:

- The number of table or table space locks that will cause lock escalation, or
- The number of locks that will terminate a DB2 user.

A lock escalation value of 0 turns off lock escalation and means that DB2 cannot use this means of conserving lock space. A user maximum of 0 means that the calculation noted in the DSNT438 message cannot be performed to see if the IRLM has sufficient address space for all users, since there is no maximum per user.

This message is issued by the following installation CLIST: DSNTINST

Severity: 4 (warning)

System Action: The CLIST will continue. This is only a warning.

User Response: Turn off lock escalation and/or user lock limiting.

DSNT440I TOTAL BP SIZE TOO LARGE

Explanation: The total size of a buffer pool is too large. The summation of the *ssnm*DBM1 address space storage requirements for all buffer pools cannot exceed 1TB. When calculating the storage requirements for the buffer pools, DB2 uses the page size (4K, 8K, 16K, or 32K) for each buffer.

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Reduce one or more of the buffer pool sizes.

DSNT442E ERROR, VIRTUAL STORAGE OF main EXCEEDS THE SYSTEM LIMIT OF 2 GIGABYTES

Explanation: The total of all virtual storage calculations exceeds the maximum amount possible for an address space.

This message is issued by the following CLIST: DSNTINST

Severity: 8 (error)

System Action: The installation CLIST returns to the initial panel without editing the installation jobs.

User Response: Respecify installation values that determine storage sizes so that the 2 GB limit is not exceeded.

DSNT443I VALUES MARKED WITH AN ASTERISK HAVE BEEN UPDATED

Explanation: An asterisk is placed before the description of fields which were generated by the DSNTINST CLIST. This message only appears when you update field(s) from a prior panel used to generate the fields on the current panel.

This message is issued by the following panels: DSNTIPA, DSNTIPL

System Action: The panel is displayed.

User Response: Verify that the current value is what you want. If it is not, enter the desired value.

DSNT444I SCROLLING BACKWARD MAY CHANGE FIELDS MARKED WITH ASTERISKS

Explanation: The marked fields on the current panel are generated from fields on other panels. If you scroll backward, these fields may be updated to reflect new

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values from other panels. For example, the ARCHIVE PREFIX field is generated from the CATALOG ALIAS field on DSNTIPA2. Message DSNT443I will be displayed to inform you when fields are changed by the DSNTINST CLIST.

This message is issued by the following panels: DSNTIPA, DSNITPL

System Action: The panel is displayed.

User Response: No action required.

DSNT445I REMOTE LOCATION NAME MUST NOT BE THE SAME AS LOCAL LOCATION

Explanation: The name entered for the remote sample location was the same as the local location name.

This message is issued by the following installation panel: DSNTIPY

System Action: The panel is displayed.

User Response: Enter a remote location name or leave the field blank to indicate that the organization sample will only be executed locally.

DSNT446I SAMPLE LOCATION MUST BE BLANK IF LOCAL LOCATION IS BLANK

Explanation: In order to edit the remote sample jobs, both the DB2 LOCATION NAME (local location) on panel DSNTIPR and the REMOTE LOCATION must have valid names. If the DB2 LOCATION NAME is unknown, leave both fields blank and the remote sample jobs will not be edited.

This message is issued by the following panel: DSNTIPY

System Action: The panel is displayed.

User Response: Either scroll back to the DISTRIBUTED DATA FACILITY panel and enter a value for the DB2 LOCATION NAME, or enter a blank in the REMOTE LOCATION field on the job editing panel.

DSNT448I STG AVAILABLE ABOVE 2GB = size T

Explanation: This is the estimated amount of real storage recommended to support the virtual storage sizes chosen.

The amount of real storage needed will vary greatly. Some customers will find that they need several times the estimate shown. For more information on storage calculations, refer to Part 2 of *DB2 Installation Guide*.

This message is issued by the following CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST continues.

User Response: Compare this recommended value with the actual available real storage.

DSNT449I NUMBER OF LOGS REDUCED FROM old-num TO MAXIMUM OF 31

Explanation: The number of active log data sets used in the DB2 release you are migrating from is greater than the new maximum number of data sets allowed for the current release of DB2. Installation job DSNTIJUZ will update your bootstrap data sets to contain only the last 31 data sets.

This message is issued by the following panel: DSNITPL

System Action: The value is reduced to the maximum of 31 and the panel is displayed.

User Response: Update any other fields on the panel and continue.

DSNT450I type ENTRY MUST BE EXACTLY TWO CHARACTERS

Explanation: These entries are used to complete SYS1.PARMLIB member names and must be exactly two characters. The type is:

APF AUTH

For the APF-authorized library list IEAAPFxx

LINK LIST

For the link list library concatenation LNKLSTxx

MVS SUBSYS

For the MVS subsystem list IEFSSNxx

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue.

User Response: Check your entries for these fields on the MVS panel and make them exactly two characters. See job DSNTIJMV that was produced and correct the IEBUPDTE CHANGE statement.

DSNT451I WARNING-THE LOCAL DATE LENGTH OR LOCAL TIME LENGTH HAS BEEN INCREASED

Explanation: The LOCAL DATE LENGTH or LOCAL TIME LENGTH has been increased and a REBIND command must be issued for any dependent plans.

This message is issued by the following installation CLIST: DSNTINST

Severity: 4 (warning)

System Action: Processing continues.

User Response: Rebind all application plans that depend upon the length of the local format that was changed.

DSNT454I ERROR CODE = errcode, CNT = count

Explanation: An error was encountered during CLIST processing for reading the parameter member. Most of these errors are caused by having a mismatch between the level of the CLIST and that of the parameter member being read.

The 'errcode' is an error code defined for the CLIST. The error code values and associated meanings are found in *TSO/E CLISTS*.

The 'count' value is the number of parameter values already read.

This message is issued by the following installation CLIST: DSNTINST

System Action: The CLIST will terminate.

User Response: Be sure the parameter member and the CLIST are at the same level.

Problem Determination: If you suspect an error in the process, set CONTROL(CONLIST) and invoke the CLIST in batch, so that the tracing can be sent with the error documentation. You will also need the listing of the CLIST and the parameter member being read.

DSNT456I ERROR IN VARIABLE varname, VALUE IS value

Explanation: The variable named 'varname' does not have a valid value. Its current value is 'value'. Subsequent messages will describe the reason the value is invalid and the action taken by the CLIST.

If the error is in the CONTROL value, the value was specified when the CLIST was invoked. The value is not valid, and no additional tracing will be done. The permitted values are NONE, LIST, CONLIST, and SYMLIST. Each value produces more CLIST tracing information than those which precede it. If the error is in other values, the value was specified when the CLIST was invoked on the ISPF panels.

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce edited jobs or parameter data.

User Response: Check the subsequent messages. Exit, then invoke the CLIST with a valid value for the variable.

Problem Determination: If you suspect an error in the process, set CONTROL(CONLIST) and invoke the CLIST in batch, so that the tracing can be sent with the error documentation. The CLIST itself and the parameter member read in should be sent as well.

DSNT457I The SUBSYSTEM NAME MUST BE DIFFERENT THAN THE PROC NAME

Explanation: Internal MVS restrictions require that the IRLM subsystem name be different than the procedure name.

This message is issued by the following panel: DSNTIPI

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change either the SUBSYSTEM NAME or the PROC NAME so these fields are unique with respect to each other.

DSNT458I VALUE MUST BE NUMERIC

Explanation: The variable named in message DSNT456I must be an integer. Only digits are allowed, with no decimal point or fractions. If the value is a number suffixed by K or M, it is interpreted as the indicated number multiplied by 1024 or 1048676. If any other non-numeric character is present in the value, or if the K or M is not the final character, this message is produced.

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce edited jobs or parameter data.

User Response: This CLIST will continue, but will not produce edited jobs. The value of the variable has been set to the value shown in message DSNT465I. You will need to reenter the output parameter and output data set prefix. Examine the value and reset it if needed.

DSNT459I VALUE IS TOO LOW, MINIMUM IS min

Explanation: The variable named in message DSNT456I must be larger than its current value. The minimum value allowed is 'min'.

This message is issued by the following installation CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce edited jobs. The CLIST resets the incorrect value to 'min'.

User Response: See message DSNT465I for the CLIST action.

DSNT460I VALUE IS TOO HIGH, MAXIMUM IS max

Explanation: The variable named in message DSNT456I must be smaller than its current value. The maximum value allowed is 'max'.

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This message is issued by the following installation
CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce edited jobs. The CLIST resets the incorrect value to 'max'.

User Response: See message DSNT465I for the CLIST action.

DSNT461I THE BUFFER POOL MAXIMUM IS LESS THAN THE MINIMUM VALUE ENTERED

Explanation: Buffer pool maximums must be greater than or equal to the minimum value for the same buffer pool.

This message is issued by the following panel:
DSNTIPE

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Either reduce the minimum value or increase the maximum value for the indicated buffer pool buffer.

DSNT462I VALUE IS TOO LONG, MAXIMUM IS length CHARACTERS

Explanation: The variable named in message DSNT456I must be shorter than its current value. The maximum length allowed is 'length'.

This message is issued by the following installation
CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce edited jobs. The CLIST resets the value to the default value.

User Response: See message DSNT465I for the CLIST action.

DSNT463I DATA SHARING FIELD MUST BE BLANK IN UPDATE MODE.

Explanation: This field is not relevant in Update mode and must be blank. This message is issued by panel:
DSNTIPA1

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Replace the value with a blank.

DSNT464I VALUES PERMITTED ARE values

Explanation: The variable named in message DSNT456I must be one of the 'values' listed.

This message is issued by the following installation
CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce edited jobs.

User Response: See message DSNT465I for the CLIST action.

DSNT465I VARIABLE varname SET TO value

Explanation: The variable, 'varname', named in message DSNT456I is in error. Possible reasons for the error are listed in messages: DSNT458I, DSNT459I, DSNT460I, DSNT462I, DSNT463I, DSNT464I.

This message is issued by the following installation
CLIST: DSNTINST

System Action: The CLIST will continue, but will not produce edited jobs. The value has been set to the value shown.

User Response: Specify the output data again on the primary install panel. You will be able to see and change the value. If this value is not acceptable, change it, noting the limits.

DSNT466I Output member CANNOT BE DSNTIDVB OR DSNTIDXA

Explanation: The OUTPUT MEMBER NAME field must not be DSNTIDVB or DSNTIDXA. These two members are shipped with DB2 and must not be overwritten.

This message is issued by the following panel:
DSNTIPA1

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change the value of the field under the cursor.

Note: If the member you specify already exists, it will be overwritten.

DSNT467I OUTPUT MEMBER SHOULD BEGIN WITH DSNTID

Explanation: The output parameter member will be placed into *prefix*.SDSNSAMP. This data set already has a large number of members. To avoid replacing a member that you need, a naming convention with prefix 'DSNTID' is strongly suggested. The suffixes 'VB' and 'XA' are not allowed (see message DSNT466I).

This message is issued by the following installation
CLIST: DSNTINST

Severity: 4 (warning)

System Action: The CLIST will continue.

User Response: Specify a different name for the output member.

DSNT468I ERROR(S) ENCOUNTERED, OUTPUT IS BYPASSED

Explanation: An error was detected earlier in this run. Because of the error, data set editing was not performed.

This message is issued by the following installation
CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will continue, but will not produce edited jobs.

User Response: Correct the errors noted earlier, and specify the output prefix name again to produce the edited data.

DSNT469I INPUT PARAMETERS MUST BE READ BEFORE MIGRATION

Explanation: The INPUT MEMBER NAME on panel DSNTIPA1 must have a value to allow migration values to be read. This is to permit the new values to be initialized.

This message is issued by the following installation
CLIST: DSNTINST

Severity: 8 (error)

System Action: The CLIST will return to the main install panel, DSNTIPA1.

User Response: Specify DSNTIDXA as the INPUT MEMBER NAME and specify the current value for the migration member.

DSNT470I WARNING, ONLY ONE VOLUME WAS SPECIFIED

Explanation: Only one volume serial number was specified on the install panel or CLIST invocation. This does not allow adequate recovery or performance unless it is intended to be a single volume test system.

This message is issued by the following installation
CLIST: DSNTINST

Severity: 4 (warning)

System Action: The CLIST will continue.

User Response: If this subsystem is intended to be recoverable, more than one volume is needed. Rerun the installation tailoring process, specifying at least one more volume on the DSNTIPA2 panel. If this is just a single volume test system, be sure that you specify a single copy of the log data sets. The boot strap data sets are small and not active, so that two are recommended even on a single volume system.

DSNT471I BEGINNING PARAMETER INPUT MEMBER inmem

Explanation: The input parameter member, 'inmem', is being read. This data includes values for all of the installation parameters.

This message is issued by the following installation
CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT472I WORK FILE DATABASE NAME CANNOT START WITH DSNDDB EXCEPT FOR DSNDDB07

Explanation: The work file database name cannot start with the characters DSNDDB unless the name is DSNDDB07.

This message is issued by the following panel:
DSNTIPK

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change the name so that it does not start with DSNDDB.

DSNT473I BEGINNING CHECK PHASE

Explanation: This message indicates the following:

- The values entered on the panels are being checked.
- Values which use the K or M suffix are being translated to numbers.

This message is issued by the following installation
CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT474I READING count, varname, datatype, data sharing scope, minval, maxval, currentval

Explanation: The values are being read from the parameter member. The count, the variable name, the data type, the data sharing scope, the minimum value, the maximum value, and the current value are shown. This message occurs when the CONTROL keyword requests a trace.

This message is issued by the following installation
CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT475I CHECK count, varname, type, minval, maxval, currentval

Explanation: This message indicates the following:

- The values read in or entered on the panels are being checked.
- Values which use the K or M suffix are being translated to numbers.

The count, the variable name, the data type, the minimum value, the maximum value, and the current value are shown. This message occurs when the CONTROL keyword requests a trace.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT476I BEGINNING PARAMETER OUTPUT MEMBER outmem

Explanation: The output parameter member named 'outmem' is being written. This data includes values for all the install parameters.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT477I OUTPUT count, varname, type, minval, maxval, currentval

Explanation: The values entered on the panels are being written to the output parameter member. The count, the variable name, the data type, the minimum value, the maximum value, and the current value are shown. This message occurs when the CONTROL keyword requests a trace.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT478I BEGINNING EDITED DATA SET OUTPUT

Explanation: The output jobs and data are being edited to tailor them. Edited JCL output was requested and no severe errors were encountered.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST will continue.

DSNT479I THE IRLM GROUP NAME AND DB2 GROUP NAME MUST BE DIFFERENT

Explanation: You entered an IRLM group name on panel DSNTIPJ that is the same as the DB2 group name entered on panel DSNTIPK. The names must be different.

This message is issued by the following panel: DSNTIPJ

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Either change the DB2 group name entered on panel DSNTIPK or the IRLM group name on panel DSNTIPJ.

DSNT480I NAME MUST BE 1-16 CHARS, BEGIN WITH A-Z, AND NOT INCLUDE #, @, OR \$.

Explanation: The location name specified on panel DSNTIPR is invalid. The location name must be 1-16 alphanumeric characters, excluding the alphabetic extenders #, @ or \$, and must begin with a letter.

This message is issued by panel: DSNTIPR

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change the location name to meet the allowable criteria.

DSNT481I DSNTINST data set DATA SET SIZE MAY BE TOO SMALL

Explanation: The DSNTINST CLIST encountered an arithmetic overflow during calculation of this data set's size.

System Action: DSNTINST continues processing and uses 2147483647 for the result of the calculation that caused the overflow. Thus, the size of the data set might be too small.

User Response: Check the data set size in installation job DSNTIJIN. If it is too small, increase it.

DSNT482I TOO MANY CONCURRENTLY ALLOCATED DATA SETS, opnds

Explanation: The number (*opnds*) calculated for the number of concurrent databases, tables per database, and table spaces per database, is too large. The maximum number of data sets that are allowed is 100,000. However, please note that virtual storage below the 16 MB line may be the limiting factor for releases prior to z/OS Version 1 Release 2. See DSNT436I and DSNT437I for more information.

The number of concurrently allocated data sets is calculated using the formula:

OPNDS = (NUMCONDB X NUMTABLE X NUMINDEX) +
(NUMCONDB X NUMTABSP)

Where Represents

NUMCONDB

The maximum number of concurrently active databases (DATABASES on panel DSNTIPE)

NUMTABLE

The estimated average number of tables per database (TABLES on panel DSNTIPD)

NUMINDEX

The estimated average number of indexes per table (set to 2)

NUMTABSP

The estimated average number of table spaces per database (TABLE SPACES on panel DSNTIPD)

This message is issued by the following installation CLIST: DSNTINST

Severity: 4 (warning)

System Action: The CLIST reduces the value of NUMCONDB so that the calculated value for OPNDS is within the allowed range. CLIST processing continues.

User Response: Do one of the following:

- Accept the reduced value for NUMCONDB calculated by the CLIST.
- Reenter smaller values for NUMCONDB, NUMTABLE, or NUMTABSP on the SIZES and STORAGE SIZES panels. You can do this by either using the END key to go back to those panels or by running the CLIST again.

DSNT483I NAME MUST BE 1-8 CHARS AND MUST BEGIN WITH A-Z

Explanation: The DB2 data sharing group name specified on panel DSNTIPK or the IRLM data sharing group name specified on panel DSNTIPJ is invalid. The DB2 or IRLM group name must be 1-8 characters, and must begin with a letter.

This message is issued by panels: DSNTIPJ, DSNTIPK

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change the group name to meet the allowable criteria.

DSNT485I type SIZE = size K

Explanation: This is the estimated main storage size for part of the DB2 database address space. This is the most constrained address space. The 'type' can be BUFFER POOL, SORT POOL SIZE, RID POOL SIZE, EDMPOOL STORAGE, DATA SET STORAGE, CODE STORAGE, or WORKING STORAGE.

The storage for buffer pools, sort pools, rid pools, EDMPOOL, and code is above the 16MB line. Most of the main storage for data set control blocks is below the 16MB line and is included in the region size. Working storage includes storage above and below the 16MB line, but storage above the line is not included in the region. Refer to Part 2 of *DB2 Installation Guide* for more information regarding this calculation.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST continues.

DSNT486I TOTAL MAIN STORAGE = totregion K

Explanation: This is the estimated total region size. It includes storage above the 16MB line. Refer to Part 2 of *DB2 Installation Guide* for more details regarding this calculation.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST continues.

DSNT487I TOTAL STORAGE BELOW 16MB = region K (ASSUMING SWA IS ABOVE THE LINE)

Explanation: This message provides an estimate of the virtual storage required below the 16MB line to check for virtual storage constraints. This calculation presumes that you have moved the SWA for DB2 above the 16MB line. Refer to Part 2 of *DB2 Installation Guide* for details regarding this calculation.

This message is issued by the following installation CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: The CLIST continues.

User Response: Check for virtual storage constraints. Your MVS should permit at least this amount of virtual storage below the 16MB line.

DSNT488I VOLUME voln WILL REQUIRE AT LEAST nn 4K BLOCKS

Explanation: This message states the number of 4KB blocks of space that will be required for the specified volume in order to install or migrate the current release of DB2.

Volume 'voln' is specified in the VOLUME SERIAL fields on install panel DSNTIPA2, or with the VOLSDATn input parameters to the Install CLIST. The message indicates how much space will be needed on the selected volume to install or migrate this release of DB2.

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This message is issued by the following installation
CLIST: DSNTINST

Severity: 0 (successful execution)

System Action: Processing continues.

User Response: Ensure that the volume has at least as much available storage as the message indicates it should have. If it does not, rerun the INSTALL CLIST specifying different volumes, or create more available space on the originally specified volume.

In order to convert the number of 4KB blocks required to the number of cylinders required, use the table below. Divide the number of 4KB blocks (in the DSNT488I message) by the number of 4KB blocks per cylinder (in the table) to get the number of cylinders required.

Device Type	4KB Blocks per Cylinder	4KB Blocks per Track
3330	57	3
3340	24	2
3350	120	4
3375	96	8
3380	150	10

These size estimates are for system data only. They do not include: user data, archive logs, image copies, or temporary work data sets other than the temporary database.

DSNT489I CLIST EDITING *dsname(member), explanation*

Explanation: The CLIST is editing the data set and member *dsname(member)*. The *explanation* is the type of data being edited and has one of these values:

INSTALL JCL

Jobs that are edited and run as directed during the installation process.

MIGRATE JCL

Jobs that are edited and run as directed only during the migration process.

FALL BACK JCL

A job that is only run as directed when falling back to the previous release.

RECOVERY JCL

A job that is only run as directed during a recovery process. It deletes the DB2 data sets.

SAMPLE JCL

Jobs that are edited and run during installation verification to add the sample application.

SAMPLE DATA

Edited data that installation verification jobs require.

CLIST Customized CLISTs to reflect your names used during the installation process.

This message is issued by the following installation
CLISTs:

DSNTINST DSNTINS1 DSNTINS2

Severity: 0 (successful execution)

System Action: The CLIST continues.

DSNT490I SAMPLE DATA UNLOAD PROGRAM

Explanation: This is the header, indicating a normal start for the application program.

DSNT491I TOO MANY TABLES ENTERED (MAXIMUM OF 100 TABLES)

Explanation: The number of tables entered for unloading exceeded the maximum of 100 tables. The first 100 tables in the input should have been processed.

System Action: The application program is terminated.

User Response: Split the run into multiple runs, none with more than 100 tables.

Problem Determination: Check the application program input. Make sure there are no more than 100 tables.

DSNT492I SQL WARNING DURING SQL STATEMENT func, TABLE ttttttt

Explanation: The SQL statement may not be executed correctly. The function 'func' may be PREPARE, OPEN, FETCH, or CLOSE, indicating the type of SQL statement encountering the error. Table 'ttttttt' is the name of the table or view being unloaded.

System Action: The request may not be executed correctly.

User Response: Refer to Part 2, "SQL return codes," on page 11.

Problem Determination: Determine which SQL statement in the application program caused the warning and see if it is reproducible. Follow the diagnosis approach suggested for the warning.

DSNT493I SQL ERROR DURING SQL STATEMENT func, TABLE ttttttt

Explanation: The SQL statement may not be executed correctly. The function 'func' may be PREPARE, OPEN, FETCH, or CLOSE, indicating the type of SQL statement encountering the error. Table 'ttttttt' is the name of the table or view being unloaded.

System Action: The request was not executed correctly.

User Response: Refer to Part 2, "SQL return codes," on page 11.

Problem Determination: Determine which SQL statement in the application program caused the error and see if it is reproducible. Follow the diagnosis approach suggested for the SQL return code.

DSNT494I ERROR DURING OPEN OF DDNAME SYSRECnn

Explanation: The ddname listed, where 'nn' ranges from 00 to 99, could not be successfully opened. A possible reason is that the DD statement to the data set was not present in the JCL.

System Action: The application program is terminated.

User Response: Check the JCL to ensure that this DD statement is provided and is able to be used for output.

Problem Determination: Make sure that the same number of DD statements and table names were provided.

DSNT495I SUCCESSFUL UNLOAD n ROWS OF TABLE ttttttt

Explanation: The message indicates that 'n' rows of table or view 'ttttttt' were unloaded. The 'n' rows were counted during the unload processing.

System Action: The request was executed successfully.

DSNT496I UNRECOGNIZED DATA TYPE CODE OF nnnnn

Explanation: The PREPARE returned an invalid data type code of decimal 'nnnnn'.

System Action: The next table is processed.

User Response: Notify the system programmer.

System Programmer Response: See the Problem Determination section.

Problem Determination: There is an error in the unload program or a new data type has been added. The recognized data types are fullword integer, halfword integer, fixed-length character, variable length character, packed decimal, floating-point, fixed-length graphic, variable length graphic, and long, variable length graphic.

DSNT497I RETURN CODE FROM MESSAGE ROUTINE DSNTIAR

Explanation: The message formatting routine detected an error.

System Action: The application program is terminated.

User Response: Notify the system programmer.

System Programmer Response: See the Problem Determination section.

Problem Determination: There is an error in the unload program. The return code from DSNTIAR is given in the MVS output of your job. When reporting this problem, have the return code, the application program listing, and JCL available.

DSNT498I ERROR, NO VALID COLUMNS FOUND

Explanation: The PREPARE returned data which did not produce a valid output record. The data was not recognized as valid, so the columns were not unloaded.

System Action: The next table is processed.

User Response: Notify the system programmer.

System Programmer Response: See the Problem Determination section.

Problem Determination: There is an error in the unload program. When reporting this problem, have the application program listing and its JCL available.

DSNT499I ERROR IN INPUT PARAMETER LIST

Explanation: The parameter list specified when DSNTIAUL or DSNTPE2 was invoked contains one or more invalid values.

System Action: The application program is terminated.

User Response: Notify the system programmer.

System Programmer Response: Check the parameter values entered when DSNTIAUL or DSNTPE2 was invoked. For DSNTIAUL, the correct parameter value is 'SQL'. This parameter indicates that DSNTIAUL input is in complete SQL statements terminated by a semicolon. For DSNTPE2, the correct parameter values are either 'ALIGN(LHS)', 'ALIGN(MID)', 'MIXED', or 'NOMIXED'. The first two parameter values represent the two output alignment options available in DSNTPE2 where 'ALIGN(LHS)' will align the output on the left margin and 'ALIGN(MID)' will center the output. The remaining two parameter values designate whether or not DSNTPE2 will recognize mixed character data where 'MIXED' means that it will and 'NOMIXED' means that it will not recognize mixed character data.

DSNT500I *csect-name* RESOURCE UNAVAILABLE REASON *reason* TYPE *type* NAME *name*

Explanation: The requested function requires a resource that is currently unavailable. In conjunction with other messages this message will identify the

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system action and the action that should be taken by the installation or operator.

'type' and 'name' identify the resource that is currently unavailable. The type code identifies the type, format, and content of the resource named.

Operator Response: Note the reason code, the type code, and the name. See the Problem Determination section for an explanation of the collected data.

Problem Determination: The reason the resource is unavailable is identified by a reason code. The reason codes that appear in this message are described in Part 4, "Section 4. DB2 Codes," on page 773. Use Table 3 in Appendix B, "Problem determination," on page 1353 to find the type of resource identified in the message.

If type is X'D00' or X'D01', the table name can be determined by using the following SQL statement:

```
SELECT CREATOR, NAME
FROM SYSIBM.SYSTABLES
WHERE DBID = dbid AND OBID = obid;
```

However, if the failing table has been dropped, then the above SELECT fails or possibly might return an incorrect name.

Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 1.

DSNT501I *csect-name* RESOURCE UNAVAILABLE

:

CORRELATION-ID	= id1
CONNECTION-ID	= id2
LUW-ID	= id3
REASON	= reason
TYPE	= type
NAME	= name

Explanation: The requested function requires a resource that is currently unavailable. This message is issued with other messages that identify the system action and the action the installer or operator should take.

DB2 can recover from a resource not available in some cases and can complete successfully. One example is during setup of a performance enhancement during bind time for execution time. If DB2 recovers successfully, then no action is necessary.

For type=905, reason=00C90092, and name=IRLM, message DSNT501I is usually issued once. It is suppressed at the DB2 subsystem level until the IRLM out-of-storage condition is relieved.

id1 The correlation identifier of the thread associated with the requester of the resource.

id2 The connection identifier of the requester.

id3 The logical-unit-of-work identifier (LUW-ID) of the thread associated with the requester of the resource. An asterisk (*) indicates that the thread does not have a LUW-ID. If the LUW-ID is not an asterisk, the value is a logical-unit-of-work-id assigned to the thread. This is followed by an equal sign (=) and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

type The type of resource that is currently unavailable. The 'type' identifies the type, as well as the format and content, of the resource 'name'. Use Table 3 in Appendix B, "Problem determination," on page 1353 to find the type of resource identified in the message.

name The name of the resource that is currently unavailable.

reason The reason code that tells why the resource is unavailable.

Operator Response: Note the 'reason' code, the 'type' code, and the 'name'.

Problem Determination: A type X'401' indicates that a cascading revoke of SYSADM or SYSCTRL in a lower-level release attempted to revoke privileges or grants on objects that are available only in a higher-level release. Because the cascading revoke affects objects that are unknown to the lower-level release, you can only revoke SYSADM or SYSCTRL from the higher-level release.

Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 1.

DSNT502I ERROR IN DSNTIAUL SQL INPUT: statement

Explanation: The DSNTIAUL input SQL statement could not be prepared.

System Action: The application program terminates.

User Response: Notify the system programmer.

System Programmer Response: Check that the DSNTIAUL input statement is a complete SQL statement, ending with a semicolon.

DSNT503I UNLOAD DATA SET *ddname* RECORD LENGTH SET TO *nnnnn*.

Explanation: If the *ddname* is SYSRECnn, the record length specified in the JCL for the data set is not large enough to contain an entire row of unloaded data, or the record length was not specified in the JCL.

If the *ddname* is SYSPUNCH, the record length specified in the JCL is not between 80 and 255, or the record length was not specified in the JCL.

System Action: DB2 sets the record length of the

unload data set to the value specified in the message text.

**DSNT504I UNLOAD DATA SET *ddname*
BLOCKSIZE SET TO *nnnnn*.**

Explanation: The block size for the SYSRECnn or SYSPUNCH data set was one of the following:

- Not specified in the JCL
- Set to zero in the JCL
- Less than the required record length
- Not an even multiple of the required record length

System Action: DB2 sets the block size of the unload data set to the value specified in the message text.

DSNT505I DSNTIAUL OPTIONS USED: 'nnn'.

Explanation: You specified these options when you invoked DSNTIAUL. 'SQL' is the only valid option.

Severity: 0 (informational)

**DSNT506I INPUT STATEMENT WAS NOT SELECT
* FROM A SINGLE TABLE. LOAD
STATEMENT WILL NEED
MODIFICATION.**

Explanation: The SELECT statement used to request a table unload contained one of the following:

- A SELECT clause other than "SELECT * FROM"
- A FROM clause that does not contain exactly one table name

The table to be loaded is therefore not the same as the table from which the data is unloaded. DSNTIAUL is unable to determine the table name and all column names for the table to be loaded.

Severity: 4 (warning)

System Action: DSNTIAUL generates a LOAD statement containing the string 'TBLNAME' for the table name. Some column names may be blank.

User Response: Change the LOAD statement table name to the name of a table with the indicated column descriptions.

**DSNT507I *csect-name* RECORD LENGTH NEEDED
IS GREATER THAN MAXIMUM
ALLOWED FOR TABLE *table-name***

Explanation: In order to unload table *table-name*, DB2 needs an output data set with a record length greater than the system maximum of 32760 bytes. This occurs when the table to be unloaded is in a 32KB page table space and contains a combination of long columns and a number of date, time, or timestamp columns.

Severity: 8 (error)

System Action: The application program is terminated.

**DSNT508I WARNING - NONSTANDARD JOB
CARD (*cardstat*), NO JOB CARDS WILL
BE ADDED TO THE EDITED JOBS**

Explanation: The job card you entered in field 3 of panel DSNTIPY contains one or more of the following errors:

- Less than 7 characters ('cardstat' = TOO SHORT)
- "/" missing as the first 2 characters ('cardstat' = MISSING //)
- Missing the word "JOB" ('cardstat' = MISSING "JOB"TOKEN)

This message is issued by the following installation CLIST: DSNTINST

System Action: The message is written to the screen, after all panels are displayed and before any job editing. No JCL is added to the edited jobs.

User Response: You can continue with job editing and manually add JCL to the edited jobs. Alternatively, you can repeat the installation process and make corrections to the job card entered on panel DSNTIPY.

**DSNT509I WARNING - MIGRATION INPUT
MEMBER LEVEL IS *rel_ind*. LEVEL
prev_rel IS REQUIRED. RETURN TO
PANEL DSNTIPA1 TO CHANGE
MIGRATION INPUT MEMBER**

Explanation: The migration input member you entered on panel DSNTIPA1 contains incorrect release indicator 'rel_ind'. It should contain the indicator for the prior release ('prev_rel'). If your input member does not contain a release indicator, 'rel_ind' will be <null>. This probably indicates that you are using a down-level member.

This message is issued by the following installation CLIST: DSNTINST

System Action: The message is written to the screen, after display of panel DSNTIPA1.

User Response: Press ENTER to proceed to the next panel, and then PF3 to return to panel DSNTIPA1 in order to enter an input member with the correct release indicator.

**DSNT510I WARNING - INPUT MEMBER *inmem*
LEVEL IS *rel_ind*. LEVEL *curr_rel* IS
REQUIRED. RETURN TO PANEL
DSNTIPA1 TO CHANGE INPUT
MEMBER**

Explanation: The input member 'inmem' you entered in field 6 on panel DSNTIPA1 contains incorrect release indicator 'rel_ind'. It should contain the indicator for the

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current release ('curr_rel'). If your input member does not contain a release indicator, 'rel_ind' will be <null>. This probably indicates that you are using a down-level member.

This message is issued by the following installation CLIST: DSNTINST

System Action: The message is written to the screen, after display of panel DSNTIPA1.

User Response: Press ENTER to proceed to the next panel, and then PF3 to return to panel DSNTIPA1 in order to enter an input member with the correct release indicator.

DSNT511I FIELDS 2 AND 5 MUST BE UNIQUE FOR EACH NEW MEMBER INSTALLED

Explanation: This warning message is issued to remind you that the IRLM SUBSYSTEM and IRLM PROC names must be unique for each new member installed within a DB2 data sharing group. The installation process does not check for uniqueness of these names within a group.

This message is issued by the following panel: DSNTIPI

User Response: Enter unique names in these fields for each member of a DB2 data sharing group.

DSNT512I DSNT512I WARNING: ENTER UNIQUE NAMES FOR LUNAME AND LOCATION NAME

Explanation: This warning message is issued to remind you that you must enter values for DB2 LOCATION NAME and DB2 NETWORK LUNAME fields.

LUNAME is used to uniquely identify this DB2 subsystem within the network and to uniquely identify trace records for correlation of accounting records. The NETWORK LUNAME must be unique within the network. The installation process does not check for uniqueness of this name within a data sharing group.

The LOCATION NAME must be unique within the network, but must be the same on all members within a DB2 data sharing group.

This message is issued by the following panel: DSNTIPR

User Response: Enter unique names in these fields.

DSNT513I FIELD 2 MUST BE UNIQUE FOR EACH NEW MEMBER INSTALLED

Explanation: This warning message is issued to remind you that the DB2 PROC NAME field on panel DSNTIPX or the RESYNC PORT field on panel DSNTIP5 must be unique for each new member installed within a DB2 data sharing group. The

installation process does not check for uniqueness of these values within a group.

This message is issued by the following panels: DSNTIPX and DSNTIP5

User Response: Enter unique values in these fields for each member of a DB2 data sharing group.

DSNT514I FIELDS 2 AND 3 MUST BE UNIQUE FOR EACH NEW MEMBER INSTALLED

Explanation: This warning message is issued to remind you that the MEMBER NAME and WORK FILE DB NAME must be unique for each new member installed within a DB2 data sharing group. The installation process does not check for uniqueness of these names within a group.

This message is issued by the following panel: DSNTIPK

User Response: Enter unique names in these fields for each member of a DB2 data sharing group.

DSNT515I FIELD 7 MUST BE UNIQUE FOR EACH NEW MEMBER INSTALLED

Explanation: This warning message is issued to remind you that the MEMBER IDENTIFIER field on panel DSNTIPJ or the DSNZPARM NAME field on panel DSNTIPO must be unique for each new member installed within a DB2 data sharing group. The installation process does not check for uniqueness of these values within a group.

This message is issued by the following panels: DSNTIPJ and DSNTIPO

User Response: Enter unique values in these fields for each member of a DB2 data sharing group.

DSNT516I FIELDS 1, 2, AND 4 MUST BE UNIQUE FOR EACH NEW MEMBER INSTALLED

Explanation: This warning message is issued to remind you that the SUBSYSTEM NAME, COMMAND PREFIX, and SUBSYSTEM SEQUENCE fields must be unique for each new member installed within a DB2 data sharing group. The installation process does not check for uniqueness of these values within a group.

This message is issued by the following panel: DSNTIPM

User Response: Enter unique values in these fields for each member of a DB2 data sharing group.

DSNT517I CHARACTERS 2-18 MUST BE A-Z, 0-9, #, @, \$, OR UNDERSCORE

Explanation: WLM environment names that do not meet the following criteria are not allowed. A WLM environment name may contain up to eighteen

characters. The first character of a WLM environment name must either be an alphabetic character (A-Z) or a standard alphabetic extender (in the United States, the standard alphabetic extenders are '#', '@', '\$'). For characters two through eighteen, a character may be an alphabetic character (A-Z), an alphabetic extender ('#', '@', '\$'), a numeric character (0-9), or the underscore character ('_').

This message is issued by panel: DSNTIPX

System Action: The panel is redisplayed, and the cursor is placed on the field with the error.

User Response: Change the WLM environment name to meet the criteria described above.

DSNT518I THE VALUES FOR DRDA PORT AND RESYNC PORT CANNOT BE THE SAME

Explanation: You entered the same value for DRDA PORT and RESYNC PORT. The values for these fields must be different.

This message is issued by the following panel: DSNTIP5

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Change either the DRDA PORT or the RESYNC PORT value so that they are different.

DSNT519I IF YOU SPECIFY EITHER DRDA OR RESYNC PORT, BOTH MUST BE SPECIFIED

Explanation: You entered a value for either DRDA PORT or RESYNC PORT, but not the other. If either DRDA PORT or RESYNC PORT is specified, both must be specified.

This message is issued by the following panel: DSNTIP5

System Action: The panel is redisplayed and the cursor is placed on the field in error.

User Response: Either enter a value for the null field, or blank out both DRDA PORT and RESYNC PORT.

DSNT520I DB2's default sizes for index and table spaces are increased in V8

Explanation: This message appears on DB2 installation panel DSNTIP7 when the CLIST is in MIGRATE mode and an entry of 0 appears in either field 4 TABLE SPACE ALLOCATION or field 5 INDEX SPACE ALLOCATION (or both). An entry of 0 indicates that DB2 default allocation sizes are to be assigned for table spaces or index spaces created without the USING clause. The purpose of the message is to alert you that the DB2 default allocation sizes have changed in Version 8.

- If you specify 0 for the TABLE SPACE ALLOCATION field, then 1 cylinder will be the default PRIQTY space allocation for non-LOB tablespaces and 10 cylinders will be the default PRIQTY space allocation for LOB tablespaces.
- If you specify 0 for the INDEX SPACE ALLOCATION field, then 1 cylinder will be the default PRIQTY space allocation for indexes.

The DB2 default SECQTY quantity depends on the setting you specify for DSNTIP7 field 7 OPTIMIZE EXTENT SIZING. See the discussion of OPTIMIZE EXTENT SIZING for more information.

Severity: 4

System Action: Processing continues.

User Response: To assign the new DB2 default allocation sizes to table spaces created without the USING clause, specify 0 in field 4 TABLE SPACE ALLOCATION. Otherwise, specify an explicit size.

To assign the new DB2 default allocation size to index spaces created without the USING clause, specify 0 in field 5 INDEX SPACE ALLOCATION. Otherwise, specify an explicit size.

DSNT522I csect-name REQUIRED TCP/IP SUPPORT NOT AVAILABLE

Explanation: The DB2 BSDS indicated that TCP/IP access was required, but the required TCP/IP interfaces were not available on this system. The required TCP/IP interfaces are provided by OS/390 Release 3.

System Action: DDF startup terminates abnormally.

System Programmer Response: Take one of the following actions:

- Install OS/390 Release 3 or later, so that the required TCP/IP interfaces are available.
- Use the change log inventory utility (DSNJU003) to deactivate DB2's TCP/IP support, by specifying PORT=0 and RESPORT=0 on the DDF statement.

DSNT524I SQL PROCEDURE DATA MIGRATION HAS COMPLETED SUCCESSFULLY. rowcount ROWS WERE COPIED FROM TABLE SYSIBM.SYSPSM TO TABLE SYSIBM.SYSROUTINES_SRC. rowcount ROWS WERE COPIED FROM TABLE SYSIBM.SYSPSMOPTS TO TABLE TO SYSIBM.SYSROUTINES_OPTS

Explanation: DB2 program DSNTIGR issued this message after it completed a one-time migration of SQL procedure data. DSNTIGR migrated the SQL procedure data from user-maintained tables SYSIBM.SYSPSM and SYSIBM.SYSPSMOPTS to the DB2 catalog tables SYSIBM.SYSROUTINES_SRC and SYSIBM.SYSROUTINES_OPTS.

DSNT525I

System Action: Migration of SQL procedure data to the DB2 catalog is complete. All changes were committed.

User Response: None.

DSNT525I SQL PROCEDURE DATA MIGRATION CANCELLED, ERROR CODE *error-code*

Explanation: DB2 program DSNTIGR issued this message after it encountered errors during a once-only migration of SQL procedure data. DSNTIGR attempted to migrate the SQL procedure data from user-maintained tables SYSIBM.SYSPSM and SYSIBM.SYSPSMOPTS to the DB2 catalog tables SYSIBM.SYSROUTINES_SRC and SYSIBM.SYSROUTINES_OPTS. The *error-code* identifies the specific cause of the problem as follows:

- 01 SQL procedure data cannot be migrated to the DB2 catalog because the user-maintained SQL procedure source table, SYSIBM.SYSPSM, does not exist.
- 02 An SQL error occurred when DSNTIGR searched SYSIBM.SYSTABLES for table SYSIBM.SYSPSM. Message DSNT408I provides more information about the SQL error.
- 03 An object named SYSIBM.SYSPSM exists, but it is not a table. This situation can occur if DSNTIGR was run before, and SYSIBM.SYSPSM is now a view of SYSIBM.SYSROUTINES_SRC.
- 07 SQL procedure data cannot be migrated to the DB2 catalog because the user-maintained SQL procedure options table, SYSIBM.SYSPSMOPTS, does not exist.
- 08 An SQL error occurred when DSNTIGR searched SYSIBM.SYSTABLES for table SYSIBM.SYSPSMOPTS. Message DSNT408I provides more information about the SQL error.
- 09 An object named SYSIBM.SYSPSMOPTS exists but it is not a table. This situation can occur if DSNTIGR was run before, and SYSIBM.SYSPSMOPTS is now a view of SYSIBM.SYSROUTINES_OPTS.
- 10 An SQL error occurred when DSNTIGR requested an exclusive lock on table SYSIBM.SYSPSM. Message DSNT408I provides more information about the SQL error.
- 12 An SQL error occurred when DSNTIGR requested an exclusive lock on table SYSIBM.SYSPSMOPTS. Message DSNT408I provides more information about the SQL error.
- 21 Catalog table SYSIBM.SYSROUTINES_SRC already contains data. DSNTIGR was cancelled because the migration integrity cannot be guaranteed.

- 23 Catalog table SYSIBM.SYSROUTINES_OPTS already contains data. DSNTIGR was cancelled because the migration integrity cannot be guaranteed.
- 30 An SQL error occurred when DSNTIGR copied data from table SYSIBM.SYSPSM to table SYSIBM.SYSROUTINES_SRC. Message DSNT408I provides more information about the SQL error.
- 40 An SQL error occurred when DSNTIGR copied data from table SYSIBM.SYSPSMOPTS to table SYSIBM.SYSROUTINES_OPTS. Message DSNT408I provides more information about the SQL error.
- 50 An SQL error occurred when DSNTIGR requested a row count of table SYSIBM.SYSPSM. Message DSNT408I provides more information about the SQL error.
- 52 An SQL error occurred when DSNTIGR requested a row count of table SYSIBM.SYSPSMOPTS. Message DSNT408I provides more information about the SQL error.
- 54 An SQL error occurred when DSNTIGR requested a row count of table SYSIBM.SYSROUTINES_SRC. Message DSNT408I provides more information about the SQL error.
- 56 An SQL error occurred when DSNTIGR requested a row count of table SYSIBM.SYSROUTINES_OPTS. Message DSNT408I provides more information about the SQL error.
- 57 After all rows were copied from the SYSIBM.SYSPSM to SYSIBM.SYSROUTINES_SRC, the row counts of the tables did not match. This indicates that a data integrity error has occurred.
- 59 After all rows were copied from the SYSIBM.SYSPSMOPTS to SYSIBM.SYSROUTINES_OPTS, the row counts of the tables did not match. This indicates that a data integrity error has occurred.
- 60 An SQL error occurred when DSNTIGR tried to drop the database that contains the user-maintained SQL procedures tables, SYSIBM.SYSPSM and SYSIBM.SYSPSMOPTS. Message DSNT408I provides more information about the SQL error.
- 70 An SQL error occurred when DSNTIGR tried to create view SYSIBM.SYSPSM on table SYSIBM.SYSROUTINES_SRC. Message DSNT408I provides more information about the SQL error.
- 72 An SQL error occurred when DSNTIGR tried to

create view SYSIBM.SYSPSMOPTS on table SYSIBM.SYSROUTINES_OPTS. Message DSNT408I provides more information about the SQL error.

- 80** An SQL error occurred during a COMMIT operation. Message DSNT408I provides more information about the SQL error.
- 82** An SQL error occurred during a ROLLBACK operation. Message DSNT408I provides more information about the SQL error.

System Action: DB2 discontinues the migration of SQL procedure data to the DB2 catalog, and all changes are rolled back.

User Response: If an SQL error has occurred, see message DSNT408I to determine the specific error. Refer to Part 2, "SQL return codes," on page 11 for more information on the SQL error.

If table SYSIBM.SYSPSM or SYSIBM.SYSPSMOPTS has been deleted, recover database DSNDBPSM to restore the table.

You can run DSNTIGR successfully only once. For data sharing migration, run DSNTIGR only on the first member of the group to migrate. Do not run DSNTIGR after remigration.

Catalog tables SYSIBM.SYSROUTINES_SRC and SYSIBM.SYSROUTINES_OPTS must be empty before you run DSNTIGR. If you have already added rows to these catalog tables, drop the SQL procedures whose creation added the rows. Run job DSNTIGR to migrate SYSIBM.SYSPSM and SYSIBM.SYSPSMOPTS, then recreate the dropped SQL procedures.

If the error code indicates a data integrity problem, notify the system programmer.

DSNT526I WARNING: DSNHDECP SPECIFIES AN UNDEFINED (0) VALUE FOR *ccsid-parm* NOTIFY THE SYSTEM PROGRAMMER.

Explanation: The DSNHDECP module that is used by the DB2 precompiler contains an undefined (0) value for the CCSID parameter that is indicated by *ccsid-parm*. The use of CCSIDs that are undefined will be disallowed by DB2 in the near future.

System Action: Processing continues.

User Response: Notify the System Programmer.

System Programmer Response: DSNHDECP needs to specify a valid, non-zero default CCSID (Coded Character Set Identifier) for each of the three encoding schemes that are supported: ASCII, EBCDIC, and UNICODE. Processing character data with an undefined CCSID can lead to unpredictable results, including loss or corruption of the data. A default CCSID must be defined even for encoding schemes not used on your DB2 system.

If *ccsid-parm* is ASCCSID, then the default CCSID for single-byte ASCII-encoded character data is undefined (set to 0). If *ccsid-parm* is SCCSID, then the default CCSID for single-byte EBCDIC-encoded character data is undefined (set to 0).

Using the undefined CCSID for EBCDIC will be disallowed in the near future by APAR PQ71079. Using the undefined CCSID for ASCII will be disallowed in a future release of DB2.

You need to take steps now to select an appropriate CCSID for each undefined CCSID, and to plan for and schedule deployment of the updated DSNHDECPs on your DB2 subsystem or data sharing system. See the documentation provided with the PTF for APAR PQ56697 for further guidance.

Do not attempt to choose or change a CCSID without guidance from IBM. Using the wrong CCSID can corrupt your data and render it unrecoverable.

DSNT527I ERROR: DB2 ATTEMPTED TO START USING THE DB2-SUPPLIED DSNHDECP MODULE. NOTIFY THE SYSTEM PROGRAMMER.

Explanation: The DSNHDECP module that is supplied by DB2 is being used to run the DB2 precompiler. DB2 requires site-dependent settings that are specified in the DSNHDECP module that was created when DB2 was installed. The DSNHDECP that was generated during installation module typically is located in the SDSNEXIT library.

System Action: DB2 startup is discontinued.

User Response: Notify the System Programmer.

System Programmer Response: Check the STEPLIB, JOBLIB, or system linklist concatenation used in the DB2 address spaces. To ensure that the proper DSNHDECP module is used, verify that the library that contains the DSNHDECP module that is generated during installation precedes the SDSNLOAD library that contains the DSNHDECP module that was supplied by DB2.

DSNT528I USE PROTECTION MUST BE YES WHEN CACHE DYNAMIC SQL IS YES

Explanation: You entered NO for USE PROTECTION on panel DSNTIPP and YES for CACHE DYNAMIC SQL on panel DSNTIP4. You must enter YES for USE PROTECTION if CACHE DYNAMIC SQL is YES.

System Action: The panel is redisplayed, and the cursor is placed on the field that is in error.

User Response: If you see this message on panel DSNTIPP, enter a value of YES for USE PROTECTION, or return to panel DSNTIP4 and enter NO for CACHE DYNAMIC SQL. If you see this message on panel DSNTIP4, enter a value of NO for CACHE DYNAMIC

SQL, or go to panel DSNTIPP and enter YES for USE PROTECTION.

DSNT530I *program-name* **COULD NOT RUN BECAUSE IT WAS NOT INVOKED FROM AN APF-AUTHORIZED LIBRARY**

Explanation: *program-name* could not run for one of the following reasons:

- *program-name* was not invoked from an APF-authorized library.
- One or more libraries in the STEPLIB or JOBLIB concatenation the job that invokes *program-name* is not APF-authorized.

System Action: The program terminates.

User Response: Notify the system programmer.

System Programmer Response: Ensure that *program-name* is link-edited with option AC(1) and resides in an APF-authorized library. Ensure that all libraries in the STEPLIB and JOBLIB concatenation for the job that invokes *program-name* are APF authorized. If *program-name* is an external module for a DB2 stored procedure or user-defined function, ensure that the corresponding SYSIBM.SYSROUTINES entry specifies a WLM-established address space.

DSNT531I *schema.routine-name* **RECEIVED SQLCODE *sqlcode* FROM SQL STATEMENT *sql-statement***

Explanation: When *schema.routine-name* executed *sql-statement*, DB2 returned the SQL warning or error *sql-code*.

System Action: *schema.routine-name* terminates.

User Response: Notify the system programmer.

System Programmer Response: Check the messages in the SYSPRINT data set for the stored procedures address space where routine *schema.routine-name* runs. Message DSNT408I provides specific information about the SQL warning or error. Refer to Section 2. SQL Return Codes for more information on the SQL error.

DSNT532I *schema.routine-name* **RECEIVED SAF RETURN CODE *return-code* FROM RACROUTE COMMAND *command*.**

Explanation: When *schema.routine-name* executed RACROUTE command *command*, the OS/390 System Authorization Facility (SAF) returned an unexpected code *return-code*.

System Action: *schema.routine-name* terminates.

User Response: Notify the system programmer.

System Programmer Response: Refer to the OS/390 Security Server RACROUTE Macro Reference for more

information about the SAF error.

DSNT540I *wlm-environment-name* **WAS REFRESHED BY *user* USING AUTHORITY FROM SQL ID *sqlid***

Explanation: DB2 stored procedure WLM_REFRESH refreshed WLM environment *wlm-environment-name*. User ID *user* issued the request, using authority from SQL ID *sqlid*.

System Action: WLM environment *wlm-environment-name* is refreshed.

User Response: None

System Programmer Response: None

DSNT541I **WLM REFRESH REQUEST FAILED. RESOURCE PROFILE *subsystem-name*.WLM_REFRESH.*wlm-environment-name* IS UNDEFINED**

Explanation: DB2 stored procedure WLM_REFRESH rejected a request to refresh WLM environment *wlm-environment-name* because SAF resource profile *subsystem-name*.WLM_REFRESH.*wlm-environment-name* does not exist. WLM_REFRESH uses the resource profile to verify whether the requestor is authorized to refresh the WLM environment. The requestor was connected to DB2 subsystem *subsystem-name*.

System Action: WLM_REFRESH rejects the refresh request.

User Response: Notify the system programmer.

System Programmer Response: Create the SAF resource profile in resource class DSNR, and permit READ access to all primary and secondary authorization IDs that need to refresh the WLM environment.

DSNT542I **SQL ID *sqlid* IS NOT AUTHORIZED TO REFRESH WLM ENVIRONMENT *wlm-environment-name***

Explanation: DB2 stored procedure WLM_REFRESH rejected a request to refresh WLM environment *wlm-environment-name* because *sqlid* is not authorized. *sqlid* is the current SQLID of the requestor.

System Action: WLM_REFRESH rejects the refresh request.

User Response: Notify the system programmer.

System Programmer Response: Give *sqlid* READ access or higher on the appropriate SAF resource profile. That profile resides in SAF resource class DSNR and has the format *ssid*.WLM_REFRESH.*wlm-environment-name*.

DSNT543I WLM REFRESH REQUEST FAILED: PARAMETER *parameter* IS NULL, BLANK, OR CONTAINS INVALID CHARACTERS

Explanation: The argument passed to WLM_REFRESH for *parameter* cannot be used for one of the following reasons:

- It is null or blank
- It contains characters that are not allowed for a SAF resource profile or for a DB2 subsystem name

System Action: The program terminates.

User Response: Notify the system programmer.

System Programmer Response:

- For the WLM_ENV_NAME parameter, specify a non-null, non-blank argument. That argument must conform to the rules for a SAF resource profile. See Appendix A of *z/OS Security Server RACF Auditor's Guide* for more information.
- For the SSID parameter, specify a null or blank argument, or a value that conforms to the rules for a DB2 subsystem name, as documented in the *DB2 Installation Guide*. If you specify a null or blank value, DB2 determines the subsystem name.

DSNT550I '*data-set-name*' IS UNAVAILABLE FOR CLIST OUTPUT BECAUSE *reason*

Explanation: Data set *data-set-name* is required for output by the DB2 Install CLIST, but cannot be allocated for the reason that is indicated by *reason*. Possible reasons are:

- **IT CANNOT BE ALLOCATED OR OPENED FOR OUTPUT**
An error occurred during an allocate, open, or close operation on *data-set-name*.
- **ERROR PROCESSING REQUESTED DATA SET**
The request for *data-set-name* could not be processed.
- **MEMBER SPECIFIED, BUT DATASET IS NOT PARTITIONED**
data-set-name already exists, but is not a partitioned data set as required by the CLIST.
- **PROTECTED DATASET**
Your userid is not authorized to use *data-set-name*.
- **VOLUME NOT ON SYSTEM**
data-set-name is registered in the system catalog on a DASD or tape volume which is currently unmounted or unavailable.
- **UNAVAILABLE DATASET**
data-set-name is currently allocated by another user.

System Action: The Install panel for specifying *data-set-name* is redisplayed. You cannot proceed to the next DB2 Install panel until the problem is resolved.

User Response: Take one of the following actions according to *reason*:

- For errors allocating, opening, or processing *data-set-name*, specific diagnostic messages are displayed by TSO. If you are not seeing these messages, enter the command TSO PROFILE WTPMSG in the command line of the current DB2 install panel. Consult the appropriate MVS system messages and codes documentation for further information about these messages.
- If *data-set-name* is indicated as a non-partitioned data set, verify that you have entered the intended data set name for CLIST output. If so, rename or delete the existing data set.
- Consult your system security administrator to obtain access to a protected data set.
- In the event of an unavailable data set, ask the current user(s) to release it. Ask your system programmer to identify the user(s) if you are unable to do so. Otherwise, try later when the data set has been freed.

DSNT552I *csect-name* CHARACTER CONVERSION FROM CCSID *from-ccsid* TO CCSID *to-ccsid* FAILED WITH ERROR CODE *error-code*

Explanation: A conversion error occurred during the conversion of a string to a different coded character set.

from-ccsid

identifies the coded character set of the string to be converted.

to-ccsid

identifies the coded character set to which it must be converted.

error-code

indicates the type of error as defined as follows:

- | | |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8 | Length exception (for example, expansion required for PC MIXED data exceeds the maximum length of the string). |
| 12 | Invalid code point. |
| 16 | Form exception (for example, invalid MIXED data). |
| 20 | Translate procedure error (for example, an error during Unicode/390 stage 2 conversions or an exit set the length control field of the string to an invalid value). |
| 24 | The conversion services have not been setup correctly or the conversion is not supported. |

Severity: 8

System Action: The operation is not performed.

User Response: If the *error-code* is 24 and the conversion request is correct, refer to *DB2 Installation Guide* for information on how to add conversion support. The MVS Command D UNI,ALL can be used to see the conversions that have been defined. For all other *error-codes*, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

- 'ACTIVE' if the keyword ACTIVE is specified
- 'RESTRICTED' if the keyword RESTRICT is specified.

System Action: Message DSNT301I or DSNT302I is produced if no object is found and the keywords ACTIVE and RESTRICT are omitted.

DSNT601I THE DESCRIPTOR FOR type name DOES NOT EXIST IN DBD01

Explanation: This message is issued for multiple-line WTO. The database, table space, or index space 'name' is in the DB2 catalog but a descriptor for the object does not exist in the DBD01 table space of database DSNDB01. This error can be produced when one of the following is true:

- The Version 8 catalog has been migrated into Version 7. There is an object in the Version 7 catalog but there is not a descriptor for the object in the Version 7 directory (DBD01).
- The user did not completely restore the DBD01 table space during a recovery process.
- There is a DB2 logic error.

In the message, 'type' is either 'DATABASE' or 'SPACE' and 'name' is the eight character name of the database, table space, or index space.

System Action: The process continues normally.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNT602I NO SPACES FOUND

Explanation: This message is issued for multiple line WTO. It is produced when a DISPLAY DB(name) SPACENAM(...) is entered and no spaces were found to satisfy the request. SPACENAM(...) might have been entered as a range, a subset, or a list of spaces.

DSNT603I spacetype name NOT type

Explanation: This message is issued for multiple-line WTO. It is produced when no table space or index space listed in the DISPLAY DB(...) SPACENAM(...) satisfies your request.

spacetype

TABLESPACE if the space is a table space or INDEXSPACE if the space is an index space.

name The name of the space.

type A character string that indicates the type of request specified. The string is a list of the following, delimited by 'OR':

DSNT604I NO INFORMATION AVAILABLE

Explanation: This message is issued for multiple line WTO. It is produced when there is no LOCK or USE information available. When DISPLAY DB(name) SPACENAM(...) is entered, and SPACENAM(...) is a list of spaces, this message indicates that no table spaces or index spaces whose names are listed have LOCK or USE information available. If DISPLAY DB(name) SPACENAM(...) is entered, and SPACENAM(...) is a range or a subset of spaces, no table spaces and index spaces within the specified database have LOCK or USE information available. This message is produced only when the keywords USE and LOCKS are specified.

DSNT694I DATABASE name CANNOT BE STOPPED. IT CONTAINS THE DDL REGISTRATION TABLES

Explanation: The database specified in the message cannot be stopped because it contains the application and object registration tables. Install SYSADM or install SYSOPR authority is needed to stop the database.

System Action: The database specified in the message is not stopped.

User Response: Reissue the command with the proper authority.

DSNT695I TABLESPACE name CANNOT BE STOPPED. IT CONTAINS A DDL REGISTRATION TABLE

Explanation: The table space specified in the message cannot be stopped because it contains an application or object registration table. Install SYSADM or install SYSOPR authority is needed to stop the table space.

System Action: The table space specified in the message is not stopped.

User Response: Reissue the command with the proper authority.

DSNT696I INDEXSPACE name CANNOT BE STOPPED. IT IS DEFINED ON A DDL REGISTRATION TABLE

Explanation: The index space specified in the message cannot be stopped because it is defined on an application or object registration table. Install SYSADM or install SYSOPR authority is needed to stop the index space.

System Action: The index space specified in the message is not stopped.

User Response: Reissue the command with the proper authority.

DSNT700I table-name IS THE ACTIVE RESOURCE LIMIT SPECIFICATION TABLE

Explanation: This is a response message to the DISPLAY RLIMIT command. The resource limit facility (governor) is currently active and is using table 'table-name' to determine resource limits.

System Action: The system continues normal processing.

User Response: See Operator Response.

Operator Response: To have the governor active while utilizing a different resource limit specification table, issue the START RLIMIT command specifying the ID of the desired table. If you do not want the facility to be active, issue the STOP RLIMIT command.

System Programmer Response: May be used to resolve questions about what table is being used.

DSNT701I RESOURCE LIMIT FACILITY IS INACTIVE

Explanation: This is a response message to the DISPLAY RLIMIT command. It results whenever the governor is not active.

System Action: Normal processing continues.

User Response: See Operator Response.

Operator Response: If you want to activate the governor, specify the ID of the resource limit specification table to be used and issue the START RLIMIT command.

System Programmer Response: If the facility is already active (that is, a DSNT703 message was previously received), verify that the DSNT703 message appeared *before* the DISPLAY RLIMIT command was entered. If uncertain, reissue the DISPLAY RLIMIT command. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

DSNT702I RESOURCE LIMIT FACILITY HAS BEEN STOPPED. WAS USING table-name

Explanation: This message is the normal response for a STOP RLIMIT command. Table 'table-name' was being used to determine resource limits.

System Action: The governor is stopped.

System Programmer Response: May be used to resolve questions about what table was being used.

DSNT703I RESOURCE LIMIT FACILITY IS ALREADY INACTIVE. STOP RLIMIT COMMAND IS IGNORED

Explanation: A STOP RLIMIT command was entered but the resource limit facility was already stopped. The command is ignored.

System Action: The system continues normal processing.

DSNT704I table-name HAS BEEN STARTED FOR THE RESOURCE LIMIT FACILITY

Explanation: This message is the normal response for a START RLIMIT command. Table 'table-name' is currently being used to determine resource limits.

System Action: The governor has started utilizing the specified table.

System Programmer Response: May be used to resolve questions about what table is being used.

DSNT705I csect-name DATABASE name CANNOT BE STOPPED. IT CONTAINS AN ACTIVE RESOURCE LIMIT SPECIFICATION TABLE

Explanation: Database *name* cannot be stopped because it contains an active resource limit specification table.

System Action: The database is not stopped.

Operator Response: If the database must be stopped, either stop the resource limit facility (STOP RLIMIT), or switch it to use a resource limit specification table that is not in the database (START RLIMIT, ID=xx). In a DB2 data sharing environment, you must either stop the resource limit facility on all members of the DB2 data sharing group or switch it to use a resource limit specification table that is not in the database.

DSNT706I table-name DOES NOT EXIST. START RLIMIT COMMAND FAILED

Explanation: The START RLIMIT command has been entered but failed because table 'table-name' does not exist.

System Action: The START RLIMIT command is ignored.

User Response: See Operator Response.

Operator Response: Verify that the 1 or 2 characters following DSNRLST are what was intended to be entered as the ID on the START RLIMIT command. If not, reenter the command specifying the proper ID. If the ID appears correct, contact the system programmer.

DSNT707I • DSNT710I

System Programmer Response: DB2 was unable to find the specified table in the catalog. Verify that the FULLY QUALIFIED name is the one expected. The table name is built by appending the 1 or 2 character ID specified on the START RLIMIT command to the authorization ID.DSNRLST. The authorization ID is determined from the DSNZPARMs used when starting the subsystem.

If everything appears to be in order, from a TSO terminal with the proper authorization, enter the following SQL statement:

```
SELECT * FROM SYSIBM.SYSTABLES WHERE NAME=DSNRLSTxx  
AND CREATOR=authorization ID
```

Where

DSNRLSTxx

Table-name starting with the DSNRLST authorization ID

Table-name up to but not including the period.

If an entry is found, save the output and if you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items:

- Console output showing the failing START command
- The output of the SELECT command.

DSNT707I **START RLIMIT COMMAND FAILED.**
COLUMN column-name IN TABLE
table-name IS INCORRECTLY DEFINED.
THE COLUMN DEFINITION IS attribute
WITH LENGTH length AND NULL
ATTRIBUTE null-attribute. THE
COLUMN DEFINITION SHOULD BE
attribute WITH LENGTH length AND
NULL ATTRIBUTE null-attribute

Explanation: The START RLIMIT command has been entered but failed because TABLE 'table-name' does not have the proper column definition for a resource limit specification table. The current column definition is given as well as the proper column definition.

System Action: The START RLIMIT command is ignored.

User Response: See Operator Response.

Operator Response: Verify that the 1 or 2 characters following DSNRLST are what was intended to be entered as the ID on the START RLIMIT command. If not, reenter the command specifying the proper ID. If the ID appears to be correct, contact the system programmer.

System Programmer Response: TABLE 'table-name' does not have the proper column definition for a resource limit specification table. Compare the current

table column definition to the proper column definition given in the message.

Problem Determination: Collect the console output showing the failing START command.

DSNT708I **INDEX index-name DOES NOT EXIST.**
START RLIMIT COMMAND FAILED

Explanation: The START RLIMIT command has been entered but failed because INDEX DSNARLxx does not exist for the corresponding resource limit specification table, DSNRLSTxx.

System Action: The START RLIMIT command is ignored.

User Response: See Operator Response.

Operator Response: Verify that the 1 or 2 characters following DSNRLST are what was intended to be entered as the ID on the START RLIMIT command. If not, reenter the command specifying the proper ID. If the ID appears to be correct, contact the system programmer.

System Programmer Response: The resource limit specification table DSNRLSTxx does not define the required index DSNARLxx. Create the required index and reissue the START RLIMIT command.

Problem Determination: Collect the console output showing the failing START command.

DSNT709I **new-table-name NOW ACTIVE.**
old-table-name WAS OLD RESOURCE
LIMIT SPECIFICATION TABLE

Explanation: A START RLIMIT command was entered while the facility was already active. The facility remains active and switches from using the old table name to the new one.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

DSNT710I **table-name ALREADY ACTIVE. START**
LIMIT COMMAND IGNORED

Explanation: A START RLIMIT command was entered and the governor is already active utilizing the specified table. The command is ignored.

System Action: The governor continues to use table 'table-name'.

User Response: See Operator Response.

Operator Response: Verify that the ID specified on the START RLIMIT command was the one desired. If not, reenter the command specifying the correct ID. If it is correct, no action is needed since the facility is already active and is using the desired table.

System Programmer Response: If you suspect an

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

DSNT711I COLUMN column-name IS MISSING IN TABLE table-name. SHOULD BE DEFINED AS attribute WITH LENGTH length AND NULL INDICATOR OF null-attribute

Explanation: The START RLIMIT command has been entered but failed because COLUMN 'column-name' in resource limit specification table 'table-name' is not defined. The proper column definition is given in the message.

System Action: The START RLIMIT command is ignored.

User Response: See Operator Response.

Operator Response: Verify that the 1 or 2 characters following DSNRLST are what was intended to be entered as the ID on the START RLIMIT command. If not, reenter the command specifying the proper ID. If the ID appears to be correct, contact the system programmer.

System Programmer Response: TABLE 'table-name' does not have COLUMN 'column-name' defined. Use ALTER TABLE to define the column as specified in the message.

Problem Determination: Collect the console output showing the failing START command.

DSNT712I INDEX index-name IS NOT FOR TABLE table-name. START RLIMIT COMMAND FAILED

Explanation: The START RLIMIT command has been entered but failed because INDEX 'index-name' is not defined for resource limit specification table 'table-name'.

System Action: The START RLIMIT command is ignored.

User Response: See Operator Response.

Operator Response: Verify that the 1 or 2 characters following DSNRLST are what was intended to be entered as the ID on the START RLIMIT command. If not, reenter the command specifying the proper ID. If the ID appears to be correct, contact the system programmer.

System Programmer Response: INDEX 'index-name' is not defined in resource limit specification table 'table-name'. resource limit specification table DSNRLSTxx does not define the required index

DSNARLxx. The last two characters of the table name correspond to the last two characters of the index. Drop the existing DSNARLxx index and create the correct index in the resource limit specification Table.

Problem Determination: Collect the console output showing the failing START command.

DSNT713I INDEX index-name IS NOT UNIQUE. START RLIMIT COMMAND FAILED

Explanation: The START RLIMIT command has been entered but failed because INDEX 'index-name' in the resource limit specification table is not defined as a UNIQUE index.

System Action: The START RLIMIT command is ignored.

User Response: See Operator Response.

Operator Response: Verify that the 1 or 2 characters following DSNRLST are what was intended to be entered as the ID on the START RLIMIT command. If not, reenter the command specifying the proper ID. If the ID appears to be correct, contact the system programmer.

System Programmer Response: INDEX 'index-name' in resource limit specification table is not UNIQUE. Redefine it as unique.

Problem Determination: Collect the console output showing the failing START command.

DSNT714I INDEX index-name IS INCORRECTLY DEFINED. START RLIMIT COMMAND FAILED

Explanation: The START RLIMIT command has been entered but failed because INDEX 'index-name' in resource limit specification table 'table-name' is not properly defined.

System Action: The START RLIMIT command is ignored.

User Response: Contact the system programmer.

Operator Response: Contact the system programmer.

System Programmer Response: INDEX 'index-name' in the resource limit specification table does not have the proper definition. Refer to Part 5 (Volume 2) of *DB2 Administration Guide* for an example to define the resource limit specification table.

Problem Determination: Collect the console output showing the failing START command.

DSNT715E ERROR reason-code READING table-name. default WILL BE RESOURCE LIMIT FOR CORRELATION-ID correlation-id, CONNECTION-ID connection-id, LUW-ID luw-id =token

Explanation: An error occurred while the resource limit specification table 'table-name' was being read. The limit is determined from the default specified in the system parameters. This default can be:

NOLIMIT

No limit applies.

NORUN

Zero time limit.

integer The limit to be used.

The reason code that defines the read error is included in the message text, as are the 'connection-ID', 'correlation-ID', and the logical-unit-of-work identifier (LUW-ID) of the thread. An LUW-ID of an '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

System Action: Processing continues using the system-defined default.

Operator Response: Notify the system programmer.

System Programmer Response: This is an I/O error. Investigate the problem indicated by the reason code and preceding messages. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

DSNT716E AN ERROR OCCURRED ESTABLISHING A RESOURCE LIMIT FOR CORRELATION-ID correlation-id, CONNECTION-ID connection-id, LUW-ID luw-id =token. limit WILL BE USED AS THE LIMIT

Explanation: An internal error occurred while the resource limit for the specified requester was being established. The 'limit' is determined from the default specified in the system parameters. This default can be:

NOLIMIT

No limit applies.

NORUN

Zero time limit.

integer The limit to be used.

A logical-unit-of-work identifier (LUW-ID) of '*' indicates that the thread does not have a LUW-ID. If the LUW-ID is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

This message is issued by the following CSECT:
DSNTCGET

System Action: Processing continues using the system-defined default.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

DSNT717I csect-name TABLE SPACE name CANNOT BE STOPPED. IT CONTAINS AN ACTIVE RESOURCE LIMIT SPECIFICATION TABLE

Explanation: Table space *name* cannot be stopped because it contains an active resource limit specification table.

System Action: The table space is not stopped.

Operator Response: If the table space must be stopped, either stop the resource limit facility (STOP RLIMIT), or switch it to use a resource limit specification table that is not in the table space (START RLIMIT,ID=xx). In a DB2 data sharing environment, you must either stop the resource limit facility on all members of the DB2 data sharing group or switch it to use a resource limit specification table that is not in the table space.

DSNT718I csect-name INDEX SPACE name CANNOT BE STOPPED. IT IS DEFINED ON AN ACTIVE RESOURCE LIMIT SPECIFICATION TABLE

Explanation: Index space *name* cannot be stopped because it contains an index on an active resource limit specification table.

System Action: The index space is not stopped.

Operator Response: If the index space must be stopped, either stop the resource limit facility (STOP RLIMIT), or switch it to use a different resource limit specification table that does not have an index in the index space (START RLIMIT,ID=xx). In a DB2 data

sharing environment, you must either stop the resource limit facility on all members of the DB2 data sharing group or switch it to use a different resource limit specification table that does not have an index in the index space.

DSNT719I TABLE *table-name* CANNOT BE READ. START RLIMIT COMMAND FAILED

Explanation: TABLE 'table-name' cannot be accessed. This message may be preceded by related error messages that explain why the table cannot be accessed.

System Action: The START RLIMIT command failed.

User Response: See Operator Response.

Operator Response: TABLE 'table-name' cannot currently be accessed for reading. In the case of a deadlock or timeout, reissue the START RLIMIT command.

DSNT720I *csect-name* INDEX *index-name* NEEDS TO BE *index-type*

Explanation: The START RLIMIT command was entered but failed because the named index defined for the resource limit specification table is not defined properly.

System Action: The system ignores the START RLIMIT command.

User Response: Contact the system programmer.

Operator Response: Contact the system programmer.

System Programmer Response: The named index defined on the resource limit specification table does not have the proper definition.

Problem Determination: Collect the console output showing the failing START command.

DSNT721I *csect-name* DATABASE *name* CANNOT BE STARTED WITH ACCESS (UT). IT CONTAINS AN ACTIVE RESOURCE LIMIT SPECIFICATION TABLE

Explanation: Database *name* cannot be started with access (UT) because it contains an active resource limit specification table.

System Action: The START DATABASE command is ignored.

Operator Response: If the database must be started with access (UT), either stop the resource limit facility (STOP RLIMIT), or switch it to use a resource limit specification table that is not in the database (START RLIMIT, ID=*xx*). In a DB2 data sharing environment, you must either stop the resource limit facility on all members of the DB2 data sharing group or switch it to

use a resource limit specification table that is not in the database.

DSNT722I *csect-name* TABLE SPACE *name* CANNOT BE STARTED WITH ACCESS (UT). IT CONTAINS AN ACTIVE RESOURCE LIMIT SPECIFICATION TABLE

Explanation: Table space *name* cannot be started with access (UT) because it contains an active resource limit specification table.

System Action: The START DATABASE command is ignored.

Operator Response: If the table space must be started with access (UT), either stop the resource limit facility (STOP RLIMIT), or switch it to use a resource limit specification table that is not in the table space (START RLIMIT, ID=*xx*). In a DB2 data sharing environment, you must either stop the resource limit facility on all members of the DB2 data sharing group or switch it to use a resource limit specification table that is not in the table space.

DSNT723I *csect-name* INDEX SPACE *name* CANNOT BE STARTED WITH ACCESS (UT). IT IS DEFINED ON AN ACTIVE RESOURCE LIMIT SPECIFICATION TABLE

Explanation: Index space *name* cannot be started with access (UT) because it contains an index on an active resource limit specification table.

System Action: The START DATABASE command is ignored.

Operator Response: If the index space must be started with access (UT), either stop the resource limit facility (STOP RLIMIT), or switch it to use a different resource limit specification table that does not have an index in the index space (START RLIMIT, ID=*xx*). In a DB2 data sharing environment, you must either stop the resource limit facility on all members of the DB2 data sharing group or switch it to use a resource limit specification table that does not have an index in the index space.

DSNT724E *csect-name* ERROR *reason-code* IN READING RESOURCE LIMIT SPECIFICATION TABLE *table-name*. FOR AUTHORIZATION ID *auth-id* RUNNING THREAD WITH CORRELATION ID *correlation-id*, CONNECTION ID *connection-id*, AND LUWID *luw-id*, USE OF *operation-name* IS NOT GOVERNED.

Explanation: An error occurred reading resource limit specification table 'table-name'. 'Auth-id' is assumed to be allowed to perform 'operation-name'.

'Operation-name' is BIND or PARALLEL PROCESSING.

The reason code defining the read error is included in the message text as well as the connection ID, correlation ID, and logical unit of work (LUW) ID of the thread. An LUW-ID '*' indicates that the request originated at this site. If not an '*', the LUW-ID is assigned to the allied thread at the requesting site. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

System Action: If the 'operation-name' is BIND, processing continues if the 'auth-id' is authorized to perform the BIND. If the 'operation-name' is PARALLEL PROCESSING, query parallelism is not disabled and can be used if the value of the CURRENT DEGREE special register is 'ANY'.

User Response: Notify the system programmer.

System Programmer Response: Investigate the problem indicated by the reason code and preceding messages. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Operator Response: Notify the system programmer.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSNT725E AN ERROR OCCURRED WHILE GOVERNING BIND OPERATIONS OF auth-id RUNNING WITH CORRELATION-ID correlation-id, CONNECTION-ID connection-id, LUW-ID luw-id. auth-id IS ALLOWED TO PERFORM BIND OPERATIONS

Explanation: An internal error occurred while determining whether or not 'auth-id' is allowed to perform bind operations. It is assumed that 'auth-id' is allowed to perform bind operations.

An LUW-ID '*' indicates that the request originated at this site. If not an '*', the LUW-ID is assigned to the allied thread at the requesting site. Correlation IDs beginning with '0nn' where 'nn' is a number from 01 to 28, identify system agents.

This message is issued by the following module:
DSNTCAUT

System Action: Processing occurs assuming the authorization ID is allowed to perform bind operations.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Operator Response: Notify the system programmer.

Problem Determination: Collect the following

diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSNT726I csect-name DATABASE name AND ANY SPACE IT CONTAINS CANNOT BE STARTED WITH ACCESS (UT). IT IS THE ACTIVE COMMUNICATIONS DATABASE

Explanation: The database specified in the message cannot be started with access (UT) because it is the active communications database. In addition, spaces within the active communications database cannot be started with access (UT).

System Action: The START DATABASE command is ignored.

Operator Response: If the database or any space within it must be started with access (UT), you must stop the distributed data facility (STOP DDF). In a DB2 data sharing environment, you must stop the distributed data facility on all members of the DB2 data sharing group.

DSNT735I object name CANNOT BE STARTED. IT CONTAINS OR IS DEFINED ON THE DDL REGISTRATION TABLE(S)

Explanation: The object specified in the message cannot be started because it contains or is defined on the DDL registration table(s). Install SYSADM or install SYSOPR authority is needed to start the object.

In the message, 'object' is either:

- DATABASE if the specified database contains the application and object registration tables
- TABLESPACE if the specified table space contains an application or object registration table
- INDEXSPACE if the specified index space is defined on an application or object registration table

System Action: The object specified in the message is not started.

User Response: Reissue the command with the proper authority.

DSNT736I csect-name ASYNCHRONOUS STOP DATABASE COMMAND HAS COMPLETED FOR COMMAND command_string

Explanation: Asynchronous processing for the STOP DATABASE command completed for the command whose syntax is shown in the message.

command_string is the STOP DATABASE command string for the command that is completed. The string always uses the abbreviation DB for DATABASE and SPACE for SPACENAM to save characters.

Only the first 100 characters of the STOP DATABASE command are displayed.

System Action: Asynchronous processing for the STOP DATABASE command is complete.

System Programmer Response: No action is required.

DSNT800I *csect-name* **DB2 CANNOT IDENTIFY TO IRLM. IRLM CANNOT CONNECT TO ITS DATA SHARING GROUP. THE LOCK STRUCTURE THAT IRLM ATTEMPTED TO ACCESS WAS *strname*.**

Explanation: IRLM failed to connect to the IRLM data sharing group. This message accompanies abend reason code 00E30806.

System Action: DB2 terminates abnormally with reason code 00E30806.

System Programmer Response: Some possible reasons why IRLM could not connect to its data sharing group are:

- The lock structure is not properly defined in the active MVS CFRM administrative policy. The lock structure name is a concatenation of the DB2 data sharing group name and the string 'LOCK1' separated by an underscore (_). For example, if the DB2 data sharing group name is DSNCAT, DSNCAT_LOCK1 is the lock structure name.
Ensure that the lock structure is properly defined in the active CFRM policy. The name of the lock structure that IRLM attempted to access is given in this message. IRLM issues message DXR138E to indicate that the lock structure definition could not be accessed in the active CFRM policy.
- IRLM could not connect the lock structure. The reason for the connect failure is given in IRLM message DXR135E.
- IRLM could not join its data sharing group. The reason for the join failure is given in IRLM message DXR134E.
- IRLM joined the wrong group. The set of IRLMs that are connected to a given lock structure must all be members of the same group. Ensure that the GROUP parameter is correctly specified in the IRLM startup procedure. If you give an incorrect group name, IRLM connects the lock structure, and then times out waiting for responses from other connectors. IRLM issues message DXR133I for the timeout.

DSNT801I **ACTION A (ADD) DOES NOT ALLOW GENERIC DISPLAY (% IN DATA FIELD).**

Explanation: You have to specify a specific data item in the DATA field.

This message is issued by the following panel:
DSN8SSH

System Action: The panel is redisplayed, and the cursor is placed on the field in error.

User Response: Enter specific data in the DATA field.

DSNT802I **ONLY ACTION D (DISPLAY) IS ALLOWED FOR DEPARTMENT STRUCTURE.**

Explanation: You cannot add, update, or erase a department structure. You can only display it.

This message is issued by the following panel:
DSN8SSH

System Action: The panel is redisplayed, and the cursor is placed on the field in error.

User Response: Change the ACTION field to D, or change the OBJECT field to DE or EM.

DSNT803I *csect-name* **DB2 CANNOT IDENTIFY TO IRLM. THE REQUESTED FUNCTION LEVEL IS NOT SUPPORTED.**

Explanation: An attempt was made to identify to an IRLM that does not support the level of function DB2 needs. This message accompanies abend reason code 00E30800.

System Action: DB2 terminates abnormally with reason code 00E30800.

System Programmer Response: Ensure that the STEPLIB statement in your IRLM startup procedure is referencing the correct IRLM code library and that IRLM is at the appropriate level of maintenance.

DSNT804I *csect-name* **THERE ARE MODIFY LOCKS OWNED BY THIS DB2 THAT HAVE BEEN RETAINED**

Explanation: When DB2 disconnected from IRLM during DB2 shutdown, IRLM indicated that there were still outstanding modify locks. These locks were retained by IRLM. The retained locks continue to protect the resources on which they are held from requests from other DB2s in the data sharing group. That is, IRLM rejects any lock request from another DB2 that is incompatible with the retained state of the lock. The locks are retained until the terminating DB2 subsystem is restarted and the resources on which the locks are held are recovered.

System Action: DB2 continues with its shutdown processing.

System Programmer Response: No response is necessary.

DSNT805I **NAME TYPE PART STATUS LPL PAGES**

Explanation: This message indicates the beginning of a set of messages used to display information as a result of a DISPLAY DATABASE command when the keyword LPL is specified. This message contains the headings of the display. (The message appears in one continuous line across the screen, not as shown above.) This message is always followed by one or more DSNT806I messages containing the column data. Refer to message DSNT806I for a description of the data these headings identify.

DSNT806I *space type part status LPL pages*

Explanation: This message contains the display information resulting from a DISPLAY DATABASE command when the keyword LPL is specified. It contains the column data describing the status of a table space or index space in the database listed in the preceding DSNT362I message. This message is always preceded by its column headings message DSNT805I. The message number for this message is not displayed.

The message fields have the following meanings:

- space* The table space name or index space name.
- type* TS for a table space, IX for an index space, LS for a LOB table space.
- part* The partition number. It is blank for a nonpartitioned table space or index space. For nonpartitioned secondary indexes, it is the logical partition number preceded by the character L (for example, L0001). For data-partitioned secondary indexes, the prefix for this value will be the character D (for example, D0001).
- status* One or more of the following, delimited by commas. The maximum length is 18 characters:

ACHKP

The table space is in aux check pending state. ACHKP on a table space indicates that CHECK DATA detected an orphan or missing LOB or an out-of-sync condition between the row in the base table and the LOB in the LOB table space.

AUXW

The table space is in aux warning state. AUXW on a LOB table space indicates that one or more LOBs in the LOB table space is invalid. AUXW on a base table space indicates that CHECK DATA detected an orphan or missing LOB or an out-of-sync condition between the row in the base table and the LOB in the LOB table space.

- CHKP** The table space is in check pending status.
- COPY** An image copy is required for this object (table space or data set within this table space). STOP is also displayed. If the image copy is required because DB2 encountered a problem during RESTART, STOPE is displayed instead of STOP.
- GRECP** The object (a table space, a table space partition, index space, or index space partition) is marked recovery pending because of the failure of a group buffer pool. This status value appears only on spaces. It does not apply to databases. See *DB2 Data Sharing: Planning and Administration* for information about resolving this restricted status.
- LPL** The object has pages or ranges of pages that are unavailable because of logical or physical damage.
- LSTOP** The logical partition is stopped.
- RECP** The table space or index space is in recovery pending status. The member must be restarted to restore full access to the data. For logical partitions, the RECP status can appear as RBDP*.
- RBDP*** indicates that the entire index is inaccessible to SQL applications, however only the logical partition needs to be recovered.
- RO** The database, table space, or index space is started for read activity only.
- RW** The database, table space, or index space is started for read and write activity.
- STOP** The database, table space, or index space is stopped.
- STOPE** DB2 implicitly stopped the table space or index space because of an internal inconsistency. A DSNT500I or DSNT501I message is issued at time of error detection to indicate the inconsistency.
- STOPP** A stop is pending or is in process for this database, table space, or index space.
- UT** The database, table space, or index space is started for utility processing only.
- UTRO** Although the table space or index

space is started as RW, a utility is in process and only RO access is allowed.

UTRW The table space or index space is started as RW and a utility is in process.

UTUT Although the table space or index space is started as RW, a utility is in process and only UT access is allowed.

LPL pages

The pages in the specified *space* that are unavailable because of logical or physical damage.

DSNT807I *csect-name* IRLM PURGE OF RETAINED LOCKS FAILED. RETURN CODE = *retcode* SUB-CODE = *subcode*

Explanation: DB2 issued a PURGE request to IRLM to purge retained locks for this DB2. The PURGE request did not complete successfully. This message shows the return code and subcode from IRLM.

This message is issued by the following CSECT:
DSNTRSTE

System Action: DB2 abends with reason code 00E30808. Restart processing is terminated.

System Programmer Response: Refer to the IRLM codes.

DSNT809E *csect-name* FEEDBACK FROM IRLM IDENTIFY INDICATED IRLM DID NOT CONNECT TO THE LOCK STRUCTURE

Explanation: DB2 identified to IRLM, but cannot continue because IRLM did not connect to the lock structure. Global locking is ignored. This message accompanies abend reason code 00E30809.

System Action: DB2 abnormally terminates with reason code 00E30809.

System Programmer Response: This condition happens if you are running DB2 in data sharing mode, but the associated IRLM is running with local scope (SCOPE=LOCAL in the IRLM startup procedure). If you are running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=GLOBAL. Conversely, if you are not running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=LOCAL.

DSNT810E *csect-name* DB2 CANNOT IDENTIFY TO IRLM. AN INVALID LOCK STRUCTURE NAME WAS DETECTED.

Explanation: DB2 could not identify to IRLM because of an invalid lock structure name. This message

accompanies abend reason code 00E30807.

System Action: DB2 startup terminates abnormally with reason code 00E30807.

System Programmer Response: This condition happens if you are not running DB2 in data sharing mode, but the associated IRLM is running with global scope (SCOPE=GLOBAL in the IRLM startup procedure). If you are not running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=LOCAL. Conversely, if you are running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=GLOBAL.

DSNT811E *csect-name* DB2 CANNOT IDENTIFY TO IRLM. REQUEST VIOLATES ONE DB2 PER IRLM RULE.

Explanation: DB2 could not identify to IRLM because another DBMS is already identified to the IRLM. This message accompanies abend reason code 00E30802.

System Action: DB2 abends with reason code 00E30802.

System Programmer Response: IRLM Version 2.1 enforces a one to one (1:1) mapping between IRLM and DB2. Multiple DBMS subsystems can no longer use the same IRLM. Ensure that:

- Each DB2 subsystem is associated with its own IRLM subsystem.
- The correct IRLM procedure name and subsystem name are specified in the DB2 system parameters.

DSNT812I -MEMBER NAME *member-name*

Explanation: This message is issued with messages DSNT389I, DSNT394I or DSNT396I for each thread in a data sharing environment. This additional line reports the member name of the DB2 subsystem accessing this object.

If the characters '(CO)' follow the member name, then this member is the castout owner for the page set or partition. The castout owner for a page set or partition is the DB2 member responsible for doing all of the castout I/O for that page set or partition.

The message number and subsystem recognition character are not included in this message.

DSNT813I ---- *status(es) page(s)*

Explanation: This message follows message DSNT389I, DSNT392I, DSNT394I, DSNT396I or DSNT806I to display more statuses, or more pages that are in the logical page list (LPL).

LPL pages can be in two formats, single pages (represented by the page number) or a range of pages (represented by the starting page number followed by a

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dash and the ending page number in the range).

The message number and subsystem recognition character are not included in this message because this message is part of a DISPLAY DATABASE data line.

DSNT814I **NON-LOCAL INFORMATION UNAVAILABLE FOR** *object = name*

Explanation: One member of the DB2 data sharing group was unable to obtain information from another member for one of these reasons:

- Overflow of the maximum buffer area sent to the DB2 subsystem running the DISPLAY. This buffer area contains the DISPLAY information.
- Problems occurred while requesting DISPLAY DB information from peer DB2 subsystems.

Terms pertinent to this message:

object Either DATABASE or SPACE

name The name of the DATABASE or SPACE

User Response:

- Issue DISPLAY GROUP to see if any DB2 members are down or unresponsive and then reissue the DISPLAY DATABASE command.
- Specify individual database names or space names instead of specifying '**'.

DSNT815I *csect-name* **THE REAL-TIME STATISTICS COLLECTION PROCESS IS NOT STOPPED**

Explanation: An error prevents DB2 from externalizing the in-memory statistics. The error is generally a persistent error and must be remedied before the process can be enabled. Look for prior messages to identify the nature of the problem.

Severity: 0 (informational)

System Action: The statistics database is implicitly stopped and no further attempt will be made to externalize the in-memory statistics.

Problem Determination: Inspect the console for prior messages, and refer to those messages for problem determination.

User Response: Notify the system programmer.

DSNT818I *csect-name* **INVALID SPACENAME SPECIFIED**

Explanation: Incorrect syntax is specified for the table space name while issuing START/STOP/DISPLAY Database Commands.

Severity: 0 (informational)

System Action: DB2 will not process the command.

Chapter 19. DSNU... messages

The severity values shown for the utility messages that follow are returned as the job-step condition code from the job step during which the message is issued. If additional messages having higher severity values are issued during the same job step, the higher value is reflected as the job-step condition code.

Severity values have the following meanings:

0	Informational	No error occurred
4	Warning	A condition was detected; the user might need to take further action
8	Error	An error was detected and processing could not continue

DSNU000I *csect-name* **OUTPUT START FOR UTILITY, UTILID = uuuuuuu**

Explanation: This message marks the start of output for the given utility job. The utility ID used to identify the utility job is 'uuuuuuu'.

Severity: 0 (informational)

System Action: Utility processing continues.

System Action: The utility job is abended.

User Response: Refer to the appropriate MVS publication.

DSNU001I *csect-name*- **RELEASE DEPENDENT MODULE *module-name* WAS NOT FOUND**

Explanation: The system could not find the specified module in the indicated library (private library, job library, or link library).

System Action: The utility job is abended.

User Response: Ensure that the load module library is indicated correctly and that the indicated library contains the requested program. If the indicated library does not contain the requested program, contact the system programmer.

System Programmer Response: The last three characters of the module name indicate the DB2 release level of the subsystem identified in the parameters passed to DSNUTILB. However, LOAD could not find the release dependent utility module for that release in the indicated library. This is probably a maintenance problem.

DSNU003I *csect-name* **NOT INVOKED APF AUTHORIZED**

Explanation: The DSNUTILS stored procedure was not invoked authorized.

Severity: 8 (error)

System Action: The utility is not run by the stored procedure.

User Response: Notify the system programmer.

System Programmer Response: Make sure that the DSNUTILS entry in SYSIBM.SYSPROCEDURES specifies that the stored procedure runs in a WLM-established address space (WLM_ENV not blank), make sure that the DSNUTILS load module is link edited with AC(1), make sure the DSNUTILS load module is in an APF authorized library, and make sure all the libraries in STEPLIB JOBLIB are APF authorized. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 532, 46, 60, 61.

DSNU002I *csect-name* - **COULD NOT LOAD RELEASE DEPENDENT MODULE *module-name* CODE=code REASON=reason**

Explanation: During the load of 'module-name', MVS returned the indicated system completion code and reason.

DSNU004I *csect-name* **UTILITY utility NOT SUPPORTED**

Explanation: Refer to *DB2 Utility Guide and Reference* for a description of utilities supported by the stored procedure.

Severity: 8 (error)

System Action: The utility is not run by the stored procedure.

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User Response: Run the utility as a batch job.

DSNU005I *csect-name input record*

Explanation: This message displays the utility statements as they were provided as input to the utility parser. An additional error message follows this message and identifies why the utility statement caused a parser error.

Severity: 8 (error)

System Action: Utility processing is not initiated. No SYSIBM.SYSUTIL record is created.

User Response: Correct the input error, and resubmit the job. Do not restart the job.

DSNU006I *csect-name DB2 SYSTEM system-name*
HAS NOT BEEN STARTED

Explanation: Utility startup processing has been unable to connect to the indicated DB2 subsystem, because a -START DB2 command has not been issued for that subsystem.

Severity: 8 (error)

System Action: Utility processing is terminated without invoking the requested utility or utilities.

User Response: Correct your JCL to specify the correct subsystem-name on the EXEC statement, and resubmit the job. Otherwise, contact the system programmer to determine when the subsystem will be available for processing.

Operator Response: Contact the system programmer to determine if a -START DB2 command should be issued for the indicated subsystem.

System Programmer Response: Have the operator issue a -START DB2 command for the indicated subsystem.

Problem Determination: DB2 must be started in order to execute DB2 utilities.

DSNU007I *csect-name DB2 SYSTEM system-name*
DOES NOT EXIST

Explanation: Utility startup processing has been unable to connect to the indicated DB2 subsystem, because it does not exist on this system.

Severity: 8 (error)

System Action: Utility processing is terminated without invoking the requested utility or utilities.

User Response: Correct your JCL to specify the correct subsystem-name on the EXEC statement, and resubmit the job. Contact your system programmer if you are not sure which DB2 subsystem you should specify.

System Programmer Response: Ensure that the

correct DB2 subsystem has been started via the -START DB2 command.

Problem Determination: DB2 must be started in order to execute DB2 utilities.

DSNU008I *csect-name* **SPECIFIED USER FAILED VALIDITY CHECK**

Explanation: Utility startup processing has been unable to connect to DB2, because the user failed the connection validity check.

Severity: 8 (error)

System Action: Utility processing is terminated without invoking the requested utility or utilities.

User Response: Contact the system programmer for assistance with your installation's security checking.

System Programmer Response: Locally defined RACF or equivalent security system connection authorization have denied the user access to DB2. Permit DB2 connection authorization if this user should be allowed access.

DSNU009I *csect-name* **SPECIFIED USER NOT AUTHORIZED FOR DB2 UTILITIES**

Explanation: Utility startup processing for the user indicated on the job statement failed, because the user is not authorized to execute DB2 utilities.

Severity: 8 (error)

System Action: Utility processing is terminated without invoking the requested utility or utilities.

User Response: Contact your system programmer for assistance with your installation's security checking.

System Programmer Response: If the USER specified something on the job statement that is incorrect, correct it, and resubmit the job. Use the SQL GRANT command to give the user the desired authority.

DSNU010I *csect-name* **UTILITY EXECUTION COMPLETE, HIGHEST RETURN CODE = rr**

Explanation: The utility completed processing with a return code of 'rr'. This indicates that no terminating error was detected.

Severity: 0 (informational) or 4 (warning)

System Action: In most cases, the SYSIBM.SYSUTIL record for this job step is deleted from SYSIBM.SYSUTIL. However, if the utility used was REORG and UNLOAD(PAUSE), the SYSIBM.SYSUTIL record remains intact so that REORG can be restarted at the RELOAD phase.

User Response: If the return code ('rr') is 0, no response is required.

If the return code ('rr') is 4, the utility output should be examined for other messages.

DSNU012I *csect-name* **UTILITY EXECUTION
TERMINATED, HIGHEST RETURN
CODE = rr**

Explanation: The utility execution was terminated. An error was detected that would not allow processing to continue. The return code has a value of 8.

Severity: 8 (error)

System Action: Utility processing is terminated.

User Response: Examine utility output for other error messages.

DSNU013I *csect-name* **JOB WITH DUPLICATE
UTILID FOUND IN SYSUTIL**

Explanation: An entry with the same qualifier was found in the SYSIBM.SYSUTIL table. The current job did not specify restart.

System Action: The utility job is abended with reason code X'00E40018'.

User Response: If the job was intended to restart the utility, RESTART should be added to the EXEC parameters. If the job was intended to rerun the utility, the -TERM utility command should be used to delete the entry that has the same qualifier from the SYSIBM.SYSUTIL table. If the job had no relation to the SYSIBM.SYSUTIL entry job, a new qualifier should be used.

DSNU014I *csect-name* **JOB WITH DUPLICATE
UTILID CURRENTLY EXECUTING**

Explanation: A job with the same qualifier was found to be executing.

System Action: The utility job is abended with reason code X'00E40018'.

User Response: If the job with the same qualifier that is currently executing is correct, either wait for the job to complete before using the same qualifier, or use another qualifier. If the job currently executing is incorrect, the -TERM command can be used to terminate it, and the failing job can be resubmitted. Do not -TERM UTILITY a utility job step that is currently active in REORG beyond the UNLOAD phase.

DSNU015I *csect-name* **JOB WITH UTILID NOT
FOUND IN SYSUTIL FOR RESTART**

Explanation: A utility job was submitted to restart a utility job that had previously failed. The SYSIBM.SYSUTIL entry for the specified qualifier provided was not found.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Use the -DISPLAY utility command to determine the correct qualifier. The job can then be resubmitted.

DSNU016I *csect-name* **UTILITY BATCH MEMORY
EXECUTION ABENDED, REASON=X0rrr
cause**

Explanation: The utility batch address space has abended. If X'0rrr' is four characters in length (that is, X'00C1'), the abend was a system X'rrr' abend. If X'0rrr' is four characters in length and system abend X'000' was indicated, a user abend was issued. If X'0rrr' is eight characters in length, the abend was a system X'04E' abend, and X'0rrr' is an abend reason code.

If the value of general register 2 is not zero, then *cause* will contain CAUSE=X'ccccccc' where X'ccccccc' is the value of general register 2. This information is for service purposes only.

System Action: The utility job is abended. The SYSIBM.SYSUTIL entry for the job is retained in the SYSUTIL table.

User Response: Consult the system programmer to obtain information on failure analysis. If the cause of the failure is correctable, the utility job can be restarted. If the error cannot be corrected, the -TERM command should be used to delete the failing job's utility id from SYSIBM.SYSUTIL.

System Programmer Response: If a system abend was encountered (4 characters), refer to the appropriate MVS publication. If an abend reason code was encountered (8 characters), refer to *DB2 Utility Guide and Reference* for problem determination.

DSNU017I *csect-name* **UTILITY DATA BASE
SERVICES MEMORY EXECUTION
ABENDED, REASON=X0rrr**

Explanation: The database services address space has abended. If X'0rrr' is four hexadecimal digits in length (for example, X'00C1'), the abend was an MVS X'rrr' abend. If X'0rrr' is eight hexadecimal digits in length, the abend was a DB2 subsystem X'04E' abend, and X'0rrr' is an abend reason code.

If the value of general register 2 is not zero, then *cause* will contain CAUSE=X'ccccccc' where X'ccccccc' is the value of general register 2. This information is for service purposes only.

System Action: The utility job is abended. The entry for the job is retained in the SYSIBM.SYSUTIL table.

User Response: Consult with the system programmer to obtain information about failure analysis. If the cause of the failure is correctable, the utility job can be restarted. If the error cannot be corrected, the -TERM command should be used to delete the failing job's utility id from SYSIBM.SYSUTIL.

System Programmer Response: If an MVS system abend was encountered (4 hexadecimal digits), refer to the appropriate MVS publication. If an abend reason code was encountered (8 hexadecimal digits), look up the reason code in Part 4, "Section 4. DB2 Codes," on page 773, and if you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU018I *csect-name* **JOB IS NOT RESTARTABLE DUE TO -START ACCESS FORCE COMMAND**

Explanation: A utility job was submitted to restart a utility job that previously failed. Although the SYSIBM.SYSUTIL entry for the specified qualifier was found, the job is not restartable because of a -START DATABASE ACCESS FORCE command. The -START DATABASE ACCESS FORCE command deleted the utility-in-process state of one or more (but not all) target objects in the job.

System Action: The utility job is abended with reason code X'00E40018'.

User Response: If the specified qualifier is correct, use the -TERM UTILITY command to terminate the utility and resubmit the job as a nonrestartable job. If the -TERM UTILITY command fails, use the -START DATABASE ACCESS FORCE command to force ALL target objects (table spaces and indexes) in the job. When the last object is forced, the SYSIBM.SYSUTIL record is deleted. If the qualifier is incorrect, correct it and restart the job.

DSNU019I *csect-name* **THIS UTILITY IS NOT ALLOWED AT A DB2 TRACKER SITE**

Explanation: When a DB2 subsystem serves as a tracker site, it cannot run utility *csect-name*. A DB2 subsystem is also a tracker site if the value of subsystem parameter TRKRSITE is YES. You may run only the following utilities at a tracker site DB2:

- REPORT
- RECOVER without the TORBA, TOLOGPOINT, or TOCOPY options
- DIAGNOSE

Severity: 8 (error)

System Action: The utility terminates.

System Programmer Response: If this DB2 subsystem does not need to serve as a remote site tracker system, remove its tracker site status before re-trying the utility. You may remove the tracker site status by stopping the DB2 subsystem, then restarting it with TRKRSITE = NO.

User Response: Contact the system programmer.

DSNU020I *csect-name* **JOB STEP INCOMPLETE**

Explanation: The REORG utility was invoked with the UNLOAD PAUSE option. This causes the immediate suspension of the job after the unload phase completes. Subsequent utilities that are invoked in the same job step are not run.

Severity: 4 (warning)

System Action: Further utility processing is terminated.

User Response: Resubmit the job with the RESTART(PHASE) parameter after the desired user action has been taken with the unload data set.

Problem Determination: Refer to *DB2 Utility Guide and Reference* for a description of the REORG utility and the UNLOAD PAUSE option.

DSNU024I *csect-name* **PARAM FIELD ERROR**
parm-field

Explanation: An error was detected in the PARM field on the EXEC statement. 'parm-field' was the input parameter field.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the indicated parameter on the EXEC DD statement, and resubmit the job.

Problem Determination: Refer to *DB2 Utility Guide and Reference* for parameter requirements.

DSNU025I *csect-name* **INVALID RESTART PARAMETER (restart)**

Explanation: Only the following values may be specified for the *restart* parameter: NO or null, CURRENT, or PHASE.

Severity: 8 (error)

System Action: The utility is not run by the stored procedure.

User Response: Correct and re-run.

DSNU028I *csect-name* **UNABLE TO CONNECT TO DB2, REASON=Xreason code**

Explanation: A connection to the DB2 subsystem failed. 'reason-code' is the DB2 reason code that was returned.

Severity: 8 (error)

System Action: The utility job is terminated.

User Response: Check the subsystem ID specified in the EXEC DD statement. If it is correct, the subsystem was not ready for processing. Ask the system

programmer when the requested subsystem will again be available for processing.

DSNU030I *csect-name* **UNABLE TO ALLOCATE**
dsn, RC=rr, CODE=ccc

Explanation: The utility was unable to allocate a necessary image copy data set. *dsn* is the data set name that the utility attempted to dynamically allocate. *rr* is the return code from the MVS dynamic allocation service, and *ccc* is the reason code associated with the return code.

System Action: The utility proceeds along one or the following paths:

If the data set was an incremental image copy data set, the utility proceeds as if it and any later incremental image copies did not exist.

If the data set was a full image copy data set, the utility attempts to use the most recent prior full image copy data set.

If the data set is used by the COPYTOCOPY utility, and the utility job step includes an OPTIONS control statement with the EVENT(ITEMERROR,SKIP) option, COPYTOCOPY processes the next item in the list.

The allocation failure may create other problems that will cause the utility to fail. This is indicated by other messages.

User Response: If the job fails, contact the system programmer.

System Programmer Response: If the utility fails because of the allocation error (as shown by a subsequent message), correct the error, then resubmit the job.

Problem Determination: Refer to the appropriate MVS publication for a complete description of the possible return and reason codes from dynamic allocation.

DSNU031I *csect-name* **UNABLE TO UNALLOCATE**
dsn, RC=rr, CODE=ccc

Explanation: The recover utility was unable to unallocate an image copy data set. The data set name that the utility attempted to unallocate is *dsn*. The return code from the MVS dynamic unallocation service is *rr*. The reason code associated with the return code is *ccc*.

System Action: The unallocation error is ignored and the utility execution continues.

Problem Determination: Refer to *MVS/ESA Programming: Authorized Assembler Services Guide* for a complete description of the possible return and reason codes from dynamic allocation.

DSNU032I **I/O ERROR ON WORKFILE, xxxxxx**

Explanation: An I/O error was encountered on a necessary OS/VS data set. 'xxxxxx' is a message that describes the error and the data set in error. This message is returned to the DB2 utility by SVC 68 (SYNADAF) from BSAM. The data set may have been needed for an unload data set, image copy data set, or load or reorganization work file data set. The utility is stopped at the beginning of the phase that used the OS/VS data set.

System Action: The utility job is abended. The utility job step is in the stopped state.

Operator Response: Except in the case of an unload data set during the RELOAD phase, the job can be restarted if an undamaged output data set is provided.

Problem Determination: Refer to the appropriate MVS publication for the format of the error message.

DSNU033I *csect-name* **THE CONTROL STATEMENT DOES NOT IDENTIFY THE OBJECT ON WHICH THE UTILITY OPERATES**

Explanation: In the utility control statement, a keyword or operand was specified before the name of the table space, index, index space, or list on which the utility operates.

Severity: 8 (error)

System Action: Parsing is discontinued and utility processing is terminated.

User Response: Specify the object of the utility before any keywords or operands that relate to the object.

Problem Determination: Refer to *DB2 Utility Guide and Reference* for correct utility syntax.

DSNU034I **DATA SET TYPE INVALID FOR DDNAME 'ddddddd'**

Explanation: A required DD statement with DDNAME='ddddddd' was found to have a data set type which is not valid for this application.

Severity: 8 (error)

System Action: The utility is terminated with a return code 8.

User Response: The data set must be capable of storing intermediate data that can be retrieved by DB2. Check that the data set is not specified as type DUMMY, SYSIN, or SYSOUT. If you require assistance in specifying a valid data set type, consult the system programmer.

System Programmer Response: Correct the JCL and resubmit the job.

DSNU035I *csect-name* **UNABLE TO FIND DD CARD FOR DDNAME, 'dddddddd'**

Explanation: A DD statement with ddname = 'dddddddd' was expected, but not found.

Severity: 8 (error)

System Action: The utility is terminated with a return code 8.

User Response: If the DDNAME is one you submitted, review and correct it. If the DDNAME was not provided by you, but by the system, consult the system programmer.

System Programmer Response: Correct the JCL and resubmit the job.

DSNU036I *csect-name* **UNABLE TO OPEN DCB FOR DDNAME dddddddd**

Explanation: The DCB associated with DDNAME 'dddddddd' could not be opened.

System Action: The utility job is abended with a reason code of X'00E40070'. The utility job step is in the stopped state.

User Response: If the ddname is one you submitted, review and correct it. If the ddname was not provided by you but by the system, consult the system programmer.

System Programmer Response: Correct the job control language and resubmit the job.

DSNU037I *csect-name* - **RECFM=U FOR DDNAME dddddddd**

Explanation: A data set to be used by the utility has an undefined record format RECFM=U. All data sets must be fixed or variable, blocked or unblocked.

System Action: The utility job is abended with a reason code of X'00E40070'. The utility job step is in the stopped state.

Operator Response: Notify the system programmer.

System Programmer Response: Ensure that no data sets involved in the utility job have RECFM=U. Resubmit the job after ending the stopped utility by the TERM UTILITY command, or do a RESTART(PHASE) of the stopped utility.

DSNU038I *csect-name* **BLOCK SIZE FOR DCB, DDNAME dddddddd, IS TOO SMALL, MUST BE AT LEAST bbbbb BYTES**

Explanation: The data set with DDNAME 'ddddddd' has a block size that is too small to accommodate a record that needs to be written.

System Action: The utility job is abended with a reason code of X'00E40079'. The utility job step is left in the stopped state.

User Response: Delete the data set in error. Change the JCL so that the block size for the data set with DDNAME 'dddddddd' is at least 'bbbb' bytes. Resubmit the utility job with the RESTART(PHASE) option.

DSNU039I *csect-name* - **LRECL=0 FOR DDNAME dddddddd**

Explanation: A data set to be used by the DB2 utility has a record length of zero after OPEN. All data sets with a record format of fixed or fixed blocked must have a valid record length greater than zero.

System Action: The utility job is abended with reason code X'00E40070'. The utility job step is left in the stopped state.

User Response: If the DDNAME is for a data set that you submitted, review and correct it. It might be necessary to provide a valid LRECL in the DCB parameter in the JCL. If the DDNAME was not provided by you but by the system, consult the system programmer.

Operator Response: Notify the user or system programmer.

System Programmer Response: Correct the data set definition, or add DCB information to the JCL. Do a RESTART(PHASE) of the stopped utility, or resubmit the job after issuing a -TERM UTILITY command for the stopped utility.

DSNU040I *csect-name* **ERROR ACCESSING DDNAME ddname, DECB=Xhex string**

Explanation: An error has occurred during BSAM access of a utility temporary file identified by 'ddname'. The DECB indicating the error is given as a hexadecimal string.

System Action: The executing utility issues an X'04E' abend with abend reason code '00E40071' following this message.

User Response: Refer to the information given in the Problem Determination section of this message. Correct the problem. Either issue the -TERM command to terminate the utility job and resubmit it, or specify the RESTART parameter and resubmit it.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this may not be necessary).

Problem Determination: The DECB provided contains the ECB in the first four bytes. The first byte of the ECB contains status bits that indicate the cause of the error. Refer to the appropriate MVS publication for the meaning of the status bits.

DSNU041I *csect-name* **INVALID CONCATENATED DATA SET FOR DDNAME dddddd**

Explanation: A non-input concatenated data set was detected. Only input data sets can be concatenated.

System Action: The utility job abended with reason code X'00E40070'. The utility job step is in the stopped state.

Operator Response: Notify the system programmer.

System Programmer Response: Remove the concatenated data sets from the data set with DDNAME 'ddddddd'. Resubmit the job after ending the stopped utility with the TERM UTILITY command, or restart the utility at the beginning of the stopped phase by using RESTART(PHASE).

DSNU042I *csect-name* **SORT PHASE STATISTICS. NUMBER OF RECORDS=*n* ELAPSED TIME=*hh/mm/ss***

Explanation: This message provides statistics on the SORT phase of a utility. The number of records sorted, 'n', and the duration of the SORT phase in hours, minutes, and seconds are provided.

Severity: 0 (informational)

System Action: The system continues to process normally.

DSNU044I *csect-name* **ERROR FROM SORT COMPONENT RC=*n*, UTILITY STOPPED**

Explanation: A nonzero return code 'n' was returned from an MVS sort. Error messages from sort are printed on the UTPRINT data set.

System Action: The executing utility job is placed in the stopped state.

User Response: Determine the cause of the error. If the error can be corrected, the utility may be restarted from the beginning of the sort phase by using the RESTART(PHASE) option. If the error is such that the utility cannot complete, the -TERM command should be issued to remove the stopped utility from the system. The -TERM utility option should rarely be exercised when the stopped utility is REORG.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this may not be necessary).

Problem Determination: This abend is accompanied by abend reason code X'00E40005', and an SVC dump is requested. In most cases, error messages from MVS sort identify the problem and the dump is not needed. If sort is unable to open the UTPRINT data set, only the message and the abend are provided. For example, if the UTPRINT DD statement is omitted, correct the problem with UTPRINT, and resubmit the job.

DSNU046I *csect-name* **UTILITY STATEMENT IS TOO LONG OR TOO COMPLEX**

Explanation: The utility command and associated control statements have caused internal fields to exceed DB2 subsystem limits.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Reduce the size or complexity of the utility statement where possible. For example, a LOAD into several tables may be broken up into a separate load statement for each table or the size of comparison fields for 'when', 'continueif', and 'nullif' operands may be reduced in size.

Problem Determination: Refer to *DB2 Utility Guide and Reference* for correct operand definitions.

DSNU047I *csect-name* **A REQUIRED DD CAR OR TEMPLATE IS MISSING. NAME=*missing-dd***

Explanation: The DB2 utility being executed requires a data set to continue processing. The DDNAME or TEMPLATE name for the missing data set is provided.

Severity: 8 (error)

System Action: Utility processing terminates.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the JCL to include the indicated DD statement or add a TEMPLATE control statement. Refer to *DB2 Utility Guide and Reference* for information about required DD statements.

DSNU048I *csect-name* **INVALID OPERAND FOR KEYWORD kkkkkkkk**

Explanation: The utility parser has determined that the operand specified for keyword 'kkkkkkkk' is invalid.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the operand in error, and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for correct operand definitions.

DSNU049I *csect-name* **- INVALID OPERAND 00000000 FOR KEYWORD kkkkkkkk**

Explanation: The utility parser has determined that operand '00000000' cannot be specified for keyword 'kkkkkkkk'. This includes a negative value following the keywords MAXRO or DELAY.

Severity: 8 (error)

System Action: Utility processing is not initiated.

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User Response: Correct the operand in error, and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for proper option specifications.

DSNU050I *csect-name utility-statement*

Explanation: This message echoes the utility statement that was input from SYSIN.

Severity: 0 (informational)

System Action: Utility processing continues.

DSNU051I *csect-name INSUFFICIENT OPERANDS FOR KEYWORD kkkkkkkk*

Explanation: An operand that is required when the keyword 'kkkkkkkk' is specified was omitted.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the operand specification, and resubmit the job. Refer to *DB2 Utility Guide and Reference* to determine the correct set of operands for 'kkkkkkkk'.

DSNU052I *csect-name KEYWORD kkk INCOMPATIBLE WITH OTHER KEYWORDS OR OPERANDS*

Explanation: The specified keyword 'kkk' cannot be used with other keywords or operands.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Refer to the *DB2 Utility Guide and Reference* for the right syntax for the specified keyword.

DSNU053I *csect-name FIELD ccccccc NOT FOUND*

Explanation: Either the column name specified, 'ccccccc', was not found in the catalog as a valid column name for the table being processed, or a WHEN keyword field name was not found in the field name list.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the LOAD utility statement, and resubmit the job.

Problem Determination: Valid column names can be found in the SYSIBM.SYSCOLUMNS table.

DSNU054I *csect-name TABLESPACE ssssssss NOT FOUND*

Explanation: The operand of the TABLESPACE keyword, 'sssssss', did not specify an existing table space name.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the table space name and/or database name, and resubmit the job.

Problem Determination: Valid table space names can be found in the SYSIBM.SYSTABLESPACE catalog table.

DSNU055I *csect-name INDEX iiiiii NOT FOUND*

Explanation: The index name specified, 'iiiiiii', was invalid.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the index name, and resubmit the job.

Problem Determination: Valid index names can be found in the SYSIBM.SYSINDEXES catalog table.

DSNU056I *csect-name TABLE ttttttt NOT FOUND*

Explanation: A utility specified a table name 'ttttttt', but the table does not exist.

Severity: 8 (error)

System Action: The error is sufficient to terminate further processing of the utility job step. The utility job step is terminated, and resources are released to their prior state.

User Response: Correct the table name and/or database name, and resubmit the utility job step.

Problem Determination: The correct table names can be found by querying the SYSIBM.SYSTABLES catalog table.

DSNU057I *csect-name DATABASE database-name NOT FOUND*

Explanation: The operand of the DATABASE keyword, 'database-name', did not specify an existing database name.

Severity: 8

System Action: The error is sufficient to terminate further processing of the utility job step. The utility job step is terminated, and resources are released to their prior state.

User Response: Correct the database name and resubmit the utility job step.

Problem Determination: The correct database names can be found by querying the SYSIBM.SYSDATABASE catalog table.

DSNU058I *csect-name utility-name* **UTILITY NOT ALLOWED AGAINST AN OBJECT IN RECOVER PENDING STATE**

Explanation: An attempt has been made to execute a utility against an object that is in RECOVER PENDING STATE. CHECK, COPY, MODIFY, LOAD, QUIESCE, REORG, and RUNSTAT are not allowed.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Remove the object from the RECOVERY PENDING STATE by using either LOAD REPLACE, RECOVER, or REPAIR against the object. Resubmit the job.

System Programmer Response: Determine which of the three utilities, LOAD REPLACE, RECOVER, or REPAIR, should be used to remove the object from the RECOVER PENDING STATE.

DSNU059I *csect-name utility-name* **UTILITY NOT ALLOWED TO RUN ON A ROSHARE READ DATABASE**

Explanation: An attempt was made to execute a utility on a ROSHARE READ database. Only the RUNSTATS, DIAGNOSE, and REPAIR DBD utilities are allowed to run on read-only shared databases.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Resubmit the utility job on the owning system, if necessary.

DSNU060I *csect-name USER userid* **NOT AUTHORIZED FOR *util-name* UTILITY ON DATABASE *dbase-name***

Explanation: User *userid* attempted to execute utility *util-name* against an object in database *dbase-name*. The user was not authorized to execute utilities for database *dbase-name*, the user's authorization did not include this utility, or the user's authorization did not have a valid seclabel.

Severity: 12 (severe error)

System Action: Utility processing is not initiated.

User Response: Ensure that the correct database was specified. If this operation involves a table with Multilevel security with row level granularity, then this user needs to have a valid security label to execute this utility.

System Programmer Response: Determine why the user was denied access. Either the authorization should be corrected, or another authorized user should invoke the utility.

Problem Determination: The following catalog tables

can be examined to determine who has proper authority: SYSIBM.SYSUSERAUTH, SYSIBM.SYSDBAUTH, or SYSIBM.SYSRESAUTH.

DSNU061I *csect-name* **USER *userid* NOT AUTHORIZED, UTILID=*utilid***

Explanation: The named user issued a utility command and was not authorized to do so.

The -TERM UTILITY command can only be issued by:

- The submitter of the utility job.
- Users with SYSOPR, SYSADM, or SYSCTRL authority.
- Users with DBADM, DBCTRL, or DBMAINT authority over every database used by the utility.

Even for users with sufficient database authority, the TERM UTILITY command will fail in these situations:

- The user issued the command before the utility determined what databases it would access.
- The utility job included the DIAGNOSE, REPORT, or STOSPACE utility. Those utilities must be terminated by the submitter of the job or by a holder of SYSOPR, SYSCTRL, or SYSADM authority.

Any user can issue a -DISPLAY UTILITY command.

System Action: The -TERM UTILITY request for utility identifier *utilid* is rejected.

User Response: Take the appropriate action:

- Wait to allow the utility to identify the databases it will access; then reissue the command.
- Obtain the required authorization and reissue the command.
- Have another user with proper authorization issue the command.

DSNU062I *csect-name util-name* **UTILITY MAY NOT BE RUN ON OBJECT *qualifier.object-name***

Explanation: An attempt was made to execute utility '*util-name*' against object '*qualifier.object-name*'. This is not allowed. The named object cannot be processed by the named DB2 utility.

Severity: 8 (error)

System Action: The utility job is terminated.

User Response: Remove the invalid utility control statements and resubmit the job.

DSNU063I *csect-name utility-name* **UTILITY NOT ALLOWED AGAINST AN OBJECT IN REBUILD PENDING STATE**

Explanation: An attempt has been made to execute a utility against an object that is in REBUILD PENDING

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STATE, CHECK, COPY, MODIFY, LOAD, QUIESCE, REORG, and RUNSTAT are not allowed.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Remove the object from the REBUILD PENDING STATE by using either LOAD REPLACE, RECOVER, or REPAIR against the object. Resubmit the job.

System Programmer Response: Rebuild the index with the REBUILD utility to remove the object from REBUILD PENDING state.

DSNU064I *csect-name* UTILITY NOT ALLOWED AGAINST SYSTEM DATABASE

Explanation: An attempt was made to execute a utility against database DSNDDB01 or DSNDDB06. The following utilities are not allowed against DSNDDB01:

LOAD
REORG TABLESPACE against SYSUTILX (allowed against other DSNDDB01 table spaces)
CHECK DATA
REPAIR DBD
RUNSTATS
MODIFY STATISTICS

The following utilities are not allowed against DSNDDB06:

LOAD (except SYSIBM.SYSSTRINGS)
CHECK DATA
REPAIR DBD

Severity: 8 (error)

System Action: Execution of the utility job is stopped.

User Response: Remove the invalid utility control statements and resubmit the job.

DSNU065I *csect-name* UTILITY NOT ALLOWED AGAINST A WORK FILE

Explanation: An attempt has been made to execute a utility against database DSNDDB07. Utilities are not allowed against work files.

Severity: 8 (error)

System Action: Execution of the utility job is stopped.

User Response: Remove the invalid utility control statement(s) and resubmit the job.

DSNU066I *csect-name* OPERAND *oooooo* NOT ALLOWED FOR *uuuuuu* UTILITY against *ttttt* TABLE

Explanation: An attempt was made to specify the REPLACE option when executing the LOAD utility on a DB2 catalog table. It is not permissible to replace existing rows in a DB2 catalog table. Rows can only be added to the existing rows in a DB2 catalog table.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the operand, and resubmit the job.

DSNU067I *csect-name* - TABLE SPACE *table-space-name* IS NOT A LOB TABLE SPACE

Explanation: The table space specified, *table-space-name*, is not a LOB table space. The object of the utility must be LOB table space.

System Action: Utility returns completion code=8.

Programmer Response: Correct the utility statement.

DSNU068I *csect-name* - *function* IS NOT SUPPORTED FOR LOB TABLE SPACES

Explanation: The function specified, *function*, is not supported for the LOB table space specified. The LOB table space reported by the message may not be explicitly named in the utility statement.

System Action: The utility processing proceeds.

DSNU069I *csect-name* - AUXILIARY TABLE *table-name* NOT PERMITTED AS EXCEPTION TABLE

Explanation: A auxiliary table was specified as an exception table.

System Action: Utility returns completion code=8.

Programmer Response: Specify an exception table that is not an auxiliary table.

DSNU070I *csect-name* KEYWORD OR OPERAND *x* INVALID WITH *y*

Explanation: The use of KEYWORD or OPERAND '*x*' is inconsistent with KEYWORD or OPERAND '*y*'.

Severity: 8 (error)

System Action: The control statement in error is rejected and processing is halted.

User Response: Correct the control statement in error and resubmit the job.

DSNU071I *csect-name* KEYWORD *x* REQUIRES KEYWORD *y*

Explanation: When keyword '*x*' is specified, keyword '*y*' must also be specified.

Severity: 8 (error)

System Action: The control statement in error is rejected and processing is halted.

User Response: Correct the control statement in error, and resubmit the job.

DSNU072I *csect-name* **INVALID KEYWORD(S) SPECIFIED FOR TABLESPACE LIST**

Explanation: The specified keyword cannot be included in a list of table spaces.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Remove the specified keyword from the list of table spaces.

DSNU073I *csect-name* - **KEYWORD 'wwwww' IGNORED**

Explanation: The keyword, 'wwwww' is no longer supported.

Severity: 0 (informational)

System Action: Utility processing proceeds.

Problem Determination: Refer to *DB2 Utility Guide and Reference* for the current syntax.

DSNU074I *csect-name - utility* **UTILITY NOT SUPPORTED FOR LOB TABLE SPACE:**
table-space-name

Explanation: The utility statement failed because the table space specified was a LOB space and the utility does not support LOB table spaces.

System Action: The statement cannot be executed.

Programmer Response: Correct the utility statement.

DSNU075I *csect-name* - **TABLE** *table_name*, **LOB COLUMN** *column-name* - **DEFINITION IS NOT COMPLETE**

Explanation: The definition of the LOB column, *column-name* in table *table_name* is not complete.

System Action: Utility returns completion code=8.

Programmer Response: Complete the LOB column definitions. A LOB column definition is not complete until the LOB table space, auxiliary table and index on the auxiliary table have been created for the LOB column.

DSNU076I *csect-name* - **KEYWORD=keyword INVALID FOR** *type* **TABLE SPACE=***table_space_name*

Explanation: The keyword, *keyword*, is invalid when the object of the utility is a *type* table space.

System Action: Utility returns completion code=8.

Programmer Response: Correct the utility statement.

DSNU077I *csect-name - utility* **IS PROHIBITED BECAUSE** *object* **IS** *pending-state*

Explanation: The *utility* specified is prohibited because the *object* is in a *pending-state*.

Severity: 8 (error)

System Action: Utility terminates and returns completion code=8.

Programmer Response:

- Run the CHECK LOB utility if the object is a LOB table space and the state is CHECK PENDING.
- Run the REBUILD INDEX utility if the object is an auxiliary index and the state is REBUILD PENDING.
- Run the CHECK INDEX utility if the object is an auxiliary index and the state is CHECK PENDING.

DSNU078I *csect-name* **INVALID DBCS IDENTIFIER**
iiii

Explanation: The DBCS identifier *iiii* is invalid. Reason codes are:

- 101** An odd number of bytes exists between the shift-out and the shift-in
- 102** No shift-in was found at the end of the identifier
- 103** DBCS blanks X'4040' are not allowed
- 104** There are no characters between the shift-out and the shift-in
- 105** Shift-out can not be the first byte of the DBCS character between the shift-out and the shift-in.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Correct the DBCS identifier and resubmit the job.

Problem Determination: Refer to Chapter 2 of *DB2 SQL Reference* to determine the correct syntax for DBCS identifiers.

DSNU079I *csect-name* **UNBALANCED PARENTHESES IN CONTROL STATEMENT**

Explanation: The utility parser has determined that there are unbalanced parentheses in the input string.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Determine the location of the missing parenthesis and insert it. The utility job can then be resubmitted.

Problem Determination: Refer to *DB2 Utility Guide*

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and Reference to determine the correct syntax for option specification.

DSNU080I *csect-name* NO UTILITY STATEMENTS FOUND IN *dd-name*

Explanation: The data set identified by *dd-name* did not contain any text. The system might have processed the end of file prematurely, or this job requires that the utility statements be skipped.

Severity: 4 (warning)

System Action: Processing continues.

User Response: If the data set is SYSIN, provide at least one utility statement, if none now exists, or verify that this job executes no utility statements. If the data set is the LISTDEF (SYSLISTD) or TEMPLATE (SYSTEMPL) data set, provide the required control statements in that data set or in SYSIN.

DSNU081I *csect-name* OPERAND 'ooooooo' EXCEEDS KEYWORD 'kkkkkkkk' MAXIMUM LENGTH

Explanation: The utility parser has determined that operand 'ooooooo' exceeds the maximum length for keyword 'kkkkkkkk'.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the operand, and resubmit the job.

Problem Determination: Refer to *DB2 Utility Guide and Reference* to determine the correct operand specification.

DSNU082I *csect-name* INVALID KEYWORD *kkkkkkkk*

Explanation: The given keyword was not recognized within the context of this control statement.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the keyword, and resubmit the job.

DSNU083I *csect-name* INVALID HEXADECEIMAL OPERAND *hhhhhhh*

Explanation: The utility parser has determined that the operand *hhhhhhh* is invalid as a hexadecimal operand. It contains one of the following errors:

- the operand contains a character that is not hexadecimal
- it has an odd number of characters

- for a UX or GX string constant, it consists of a number of characters that is not a multiple of 4

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the keyword, and resubmit the job.

DSNU084I *csect-name* INVALID GRAPHIC OPERAND *gggg*

Explanation: The utility parser has determined that the operand 'gggg' is invalid as a hexadecimal operand. The graphic operand is either missing one or both of the shift characters or is not an even number of characters.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Correct the utility statement, and resubmit the job.

DSNU085I *csect-name* INVALID SPECIAL CHARACTER OPERAND *ssss*

Explanation: The utility parser has determined that the operand 'ssss' is invalid as a special character operand. For a special character operand to be invalid, it must have either a shift-out or a shift-in character and be missing the corresponding shift character, or not have an even number of characters between the shift-out, shift-in characters.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Correct the utility statement, and resubmit the job.

DSNU086I *csect-name* *tttt* I/O ERRORS ON SPACE= *ddddddd*. DATA SET NUMBER= *nnn*. I/O ERROR PAGE RANGE= *aaaaaa*, *bbbbbb*.

Explanation: DB2 detected an error. This message is issued for, but not limited to the following reasons:

- I/O errors were detected on the named object. *tttt* is either 'READ' or 'WRITE'. *nnn*; is the data set number. *aaaaaa* is the first damaged page and *bbbbbb* is the last damaged page of the data set.
- A broken page was detected.
- A page parity error was detected for a 'must complete' agent.
- A read or write I/O error was detected. A LPL recovery might be in progress so the page is added to the WEPR instead of the LPL.

Severity: 0 (informational)

System Action: Processing continues, but the pages within the error range are no longer accessible.

System Programmer Response: Determine the appropriate level of recovery, and invoke the recovery utility. If user-defined data sets are being used and full data set or table space RECOVER is to be used, then, prior to invoking the RECOVER utility, the table space must be stopped, new data set(s) defined, and the table space restarted. If the data set is part of a ROSHARE READ database, determine whether it was a link or DASD failure. If there was a link failure, then fix the link, and issue a -START DATABASE with the ACCESS(FORCE) parameter. If the error was caused by a DASD failure, then correct the problem from the system on which the database was defined as ROSHARE OWNER.

Problem Determination: Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a discussion of database recovery procedures.

There may be an IOS message on the MVS console SYSLOG indicating the type of I/O error that occurred. If an IOS message was issued, follow the Problem Determination directions for the message.

DSNU087I *csect-name* **INVALID OPERAND TYPE FOR KEYWORD** *kkkkkkkk - oooooooo*

Explanation: The utility parser has determined that the operand 'ooooooo' is the wrong type for the keyword 'kkkkkkkk'. An example of such an error would be a decimal operand where only a hexadecimal operand is allowed.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the keyword, and resubmit the job.

Problem Determination: Refer to *DB2 Utility Guide and Reference* to determine valid operand types for the designated keyword.

DSNU088I *csect-name* **INVALID CHARACTER OPERAND** *ccccccc*

Explanation: The utility parser has determined that the operand 'ccccccc' is invalid as a character operand.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the keyword, and resubmit the job.

Problem Determination: Refer to *DB2 Utility Guide and Reference* for correct specification of the character operand.

DSNU089I *csect-name* **OPERAND** *ooooooo* **IS TOO LONG**

Explanation: The utility parser has determined that the operand 'ooooooo' is too long for the keyword specified.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the keyword, and resubmit the job.

Problem Determination: Refer to *DB2 Utility Guide and Reference* for correct operand length specification.

DSNU090I *csect-name* **DD OR TEMPLATE NAME** *nnn* **IS INVALID FOR KEYWORD** *kkk*

Explanation: The DDNAME or TEMPLATE *nnn* was used as an improper input of the specified keyword *kkk* or from one of the reserved ddnames: SYSIN, SYSPRINT, UTPRINT, SORTWKnn, SORTLIB.

Severity: 8 (error)

System Action: Processing terminates.

User Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU091I *csect-name* **DDNAME** *nnn* **IS A DUPLICATE**

Explanation: The DDNAME 'nnn' was used as operand in the input statement more than once.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Change the ddname to a different one.

DSNU092I *csect-name* **NUMBER OF OPERANDS FOR KEYWORD** *kkk* **EXCEEDS MAXIMUM**

Explanation: The keyword 'kkk' contains more than the maximum number of operands.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Refer to *DB2 Utility Guide and Reference* for the limit on the number of operands for the specified keyword.

DSNU093I *csect -* **INVALID CHARACTER STRING** *string* **IN CONTROL STATEMENT**

Explanation: An invalid character string *string* was found in a utility control statement where a keyword, operand, operator or punctuation was expected.

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Severity: 8 (error)

System Action: Processing terminates.

User Response: Correct the utility control statement, and resubmit the job.

DSNU094I *csect-name* KEYWORD 'wwwww' IS DUPLICATED

Explanation: The keyword 'wwwww' is not allowed twice.

Severity: 8

System Action: The control statement in error is rejected and the processing is halted.

User Response: Correct the control statement in error, and resubmit the job.

DSNU095I *csect-name* UTILITY uuuuuuuu INCONSISTENT WITH LAST INVOCATION

Explanation: This message can occur when a utility job step is restarted and a utility statement was modified, added or deleted from SYSIN.

Severity: 8 (error)

System Action: Utility processing is terminated. The utility job step remains in SYSIBM.SYSUTIL in the stopped state.

User Response: Restart the utility job with the statements in the same order as they were in when the job was first run. If a statement was modified, change the statement back to the format in the original invocation and restart the job. Utility statements should not be altered for restart.

DSNU096I *csect-name* OPERAND 00000000 INCONSISTENT WITH LAST INVOCATION

Explanation: When the utility job step was restarted, the indicated operand was found to be inconsistent with the restart point.

System Action: The restart of utility processing is not initiated.

User Response: To restart, restore the operand to its prior definition. If this is not acceptable, terminate the utility job step, take corrective action, and resubmit the job.

Operator Response: An operator with SYSOPR authority can terminate the utility job step (this may not be necessary). A REORG utility that is beyond the UNLOAD phase should rarely be terminated.

Problem Determination: Refer to *DB2 Utility Guide and Reference* for operand definitions. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a

discussion of utility restart constraints.

DSNU097I *csect-name - input* WILL BE REQUIRED SYNTAX IN FUTURE RELEASES

Explanation: The identified 'input' is not required in this release, but it will be part of the required syntax in future releases.

Severity: 4 (warning)

System Action: Utility processing continues.

Programmer Response: Refer to *DB2 Utility Guide and Reference* for the current syntax.

DSNU099I *csect-name - IRLM 'req-type'* REQUEST FAILED, IRLM RETURN CODE = X'*return-code*' IRLM REASON CODE = X'*reason-code*'

Explanation: The request to the IRLM to obtain or release a lock failed for the reasons specified in *return-code* and *reason-code*. In a non data-sharing environment, the requested lock is the utility serialization lock. In a data sharing environment, the requested lock is the utility serialization lock, the utility identifier lock, or the utility execution lock. The IRLM return and reason codes are documented in Part 5, "IRLM messages and codes," on page 1307. The type of request is indicated by *req-type*.

System Action: Utility and command processing terminates.

User Response: Refer to the IRLM messages and codes section for problem determination and the appropriate action. Restart the utility by specifying the RESTART parameter, or terminate the utility with the -TERM command and then resubmit the job. If this message was received during the -DIS UTIL, -TERM UTIL, or -START DATABASE ACCESS(FORCE) command, then the command can be reissued.

System Programmer Response: Determine the cause of the IRLM error and take appropriate action.

Problem Determination: Obtain the system console log output, dump, and SYS1.LOGREC information. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU100I *csect-name* **USERID =** *userid* **MEMBER =** *member-name* **UTILID =** *utilid*
PROCESSING UTILITY STATEMENT
statement-number **UTILITY =** *utility-name*
PHASE = *utility-phase* **COUNT =** *object-count* **NUMBER OF OBJECTS IN LIST =** *list-size* **LAST OBJECT STARTED =** *last-started* **STATUS = STOPPED**

Explanation: This message is issued in response to a DISPLAY UTILITY command. The utility job with identifier *utilid* stopped during processing. The utility stopped for one of these reasons:

- The REORG utility stopped in response to its UNLOAD(PAUSE) option. The utility is stopped in the RELOAD phase.
- The utility is stopped because of a DB2 subsystem failure or cancellation (for example, a STOP DB2 command).

In a data sharing environment, *member-name* identifies the DB2 member. In a non data-sharing environment, *member-name* is blank. At the time of the request, *object-count* records or pages were processed.

If the utility job step is restarted with the RESTART(PHASE) option, it begins with PHASE *utility-phase*. However, not all utilities have phases. Those that do have phases restart from the beginning of that phase.

COUNT indicates the number of pages or records processed in a utility phase. COUNT has different meanings for different utilities. For utilities not mentioned below, ignore this field.

- For CHECK INDEX, LOAD, REBUILD INDEX, and REORG: number of records processed (log records for the LOG phase of REORG), or 0 (for the SWITCH or BUILD2 phase of REORG).
- For COPY, MERGECOPY, RECOVER (restore phase), and RUNSTATS: number of pages processed.
- For STOSPACE: number of table spaces or indexes processed.

If the utility is processing a list of objects, *list-size* gives the total number of objects in the list and *last-started* gives the item number of the last object for which processing was started. These values may not be accurate in the UTILINIT before the list size has been determined.

Severity: 0 (informational)

System Action: DB2 waits for directions to either restart or terminate the utility.

User Response: If you have the required authority, restart or terminate the utility job step.

To restart the job step, you must have authority to run

the indicated utility and to complete any other utility functions in the utility job step.

To terminate the utility with the -TERM UTILITY command, you must be the originator or have SYSOPR or SYSADM authority.

Operator Response: If necessary, and if you have SYSOPR authority, you can issue the -TERM UTILITY command to release the resources claimed by the stopped utility.

DSNU103I *csect-name* - **UNABLE TO ACCESS SYSUTIL TABLE AT THIS TIME**

Explanation: An -ALTER UTILITY, -DISPLAY UTILITY, or -TERM UTILITY command was issued at the same time that the DSNDB01.SYSUTILX table space was the object of an active utility job. The utility job might be holding locks that would cause a deadlock condition to occur.

Severity: 8 (error)

System Action: The command processing is terminated.

User Response: Enter the command again. This message is issued in response to each command until the utility action on the DSNDB01.SYSUTILX table space completes.

DSNU104I *csect-name* - **DSNDB01.SYSUTILX IN A PENDING STATE PROHIBITS FURTHER PROCESSING**

Explanation: The -ALTER UTILITY, -TERM UTILITY, or -DISPLAY UTILITY command was issued when the DSNDB01.SYSUTILX table space was in a pending state, which prohibits further processing. The pending state was either copy or recovery pending.

Severity: 0 (informational)

System Action: Command processing is terminated.

User Response: Notify the system programmer so that the pending condition can be resolved.

System Programmer Response: Issue a -DISPLAY DATABASE command to determine the state of the DSNDB01.SYSUTILX table space. If the state is copy pending, do a full image copy. If the state is recovery pending, use the RECOVER utility to recover DSNDB01.SYSUTILX. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU105I *csect-name* - **USERID=userid**
MEMBER=member-name UTILID=utilid
PROCESSING UTILITY STATEMENT n
UTILITY=utility-name
PHASE=phase-name COUNT=n
NUMBER OF OBJECTS IN LIST=list-size
LAST OBJECT STARTED=last-started
STATUS=ACTIVE

Explanation: This message is issued in response to a DISPLAY UTILITY command.

It is also issued by the REORG utility if the user specified SHRLEVEL REFERENCE or CHANGE and DB2 *estimates* that the switch phase will not start by the deadline specified by the DEADLINE phrase.

This message gives the user an estimate of how much processing the utility completed. The *utility-name* utility in the utility job step identified by *utilid* was executing in phase *utility-phase* at the time the -DISPLAY UTILITY request was made. In a data sharing environment, *member-name* identifies the DB2 member. In a non-data-sharing environment, *member-name* is blank.

COUNT *n* is the number of pages or records processed in a utility phase. COUNT has different meanings for different utilities. For utilities not mentioned below, ignore this field.

- For CHECK INDEX, LOAD, REBUILD INDEX, and REORG: number of records processed (log records for the LOG phase of REORG), or 0 (for the SWITCH or BUILD2 phase of REORG).
- For COPY, MERGECOPY, RECOVER(restore phase), and RUNSTATS: number of pages processed
- For STOSPACE: number of table spaces or indexes processed.

If the utility is processing a list of objects, *list-size* gives the total number of objects in the list and *last-started* gives the item number of the last object on which processing was started. These values may not be accurate in the UTILINIT before the list size has been determined.

Severity: 0 (informational)

System Action: The message reflects the state of DB2 at the time of the -DISPLAY UTILITY command or the time when DB2 estimated that the switch phase in the REORG utility with SHRLEVEL REFERENCE or CHANGE would not start by the deadline specified by the DEADLINE phrase.

If this message was issued for -DISPLAY UTILITY, the system continues processing. A subsequent -DISPLAY UTILITY command reflects that processing.

DSNU106I *csect-name utility-name* **UTILITY,**
MEMBER = member-name UTILID =
utilid **TERMINATING**

Explanation: This message is issued in response to a DISPLAY UTILITY command. The *utility-name* utility in the utility job step identified by *utilid* was in the process of terminating at the time the DISPLAY UTILITY request was issued. The utility is terminating in response to a previous TERM UTILITY request.

In a data sharing environment, *member-name* identifies the DB2 member. In a non data-sharing environment, *member-name* is blank.

Severity: 0 (informational)

System Action: The system is stopping the utility and releasing all resources associated with the utility. After the utility terminates, DB2 can reuse the utility identifier.

DSNU107I *csect-name* **MEMBER NAME**
member-name **IS NOT A MEMBER OF**
THIS DATA SHARING GROUP.

Explanation: This message is issued by the DISPLAY UTILITY command when an invalid *member-name* is encountered in the member list.

Severity: 4

System Action: The DISPLAY UTILITY command ignores the invalid *member-name* and continues to process the next member name specified.

User Response: Correct the member name and reissue the command.

DSNU108I *csect-name* **DATA SHARING**
ENVIRONMENT IS NOT ACTIVE,
MEMBER KEYWORD NOT
APPLICABLE.

Explanation: This message is issued by the DISPLAY UTILITY command when the MEMBER keyword is specified, but data sharing is not active.

Severity: 4

System Action: The DISPLAY UTILITY command ignores the MEMBER keyword and its associated parameters, but continues processing.

User Response: Make sure data sharing is active before issuing the DISPLAY UTILITY command with the MEMBER keyword.

DSNU109I *csect-name* **UTILITY utilid CAN ONLY BE**
TERMINATED OR ALTERED BY
MEMBER = member-name

Explanation: The -TERM UTILITY or -ALTER UTILITY command cannot terminate or alter the utility job with identifier *utilid*, because it belongs to member *member-name* of the DB2 data sharing group.

Activeutility jobs can be terminated or altered only from the system on which they were running.

Severity: 8 (error)

System Action: If this message was issued for the -TERM UTILITY command, the command ignores the *utilid* and continues to process the next utilid, if any. If this message was issued for the -ALTER UTILITY command, the command is rejected, and further processing of the command is ended.

User Response: Make sure the *utilid* identifies the utility you want to terminate or alter. If it does, issue the command from the DB2 member identified in the message.

DSNU110I *csect-name* UTILID = *uuuu* INVALID

Explanation: This message is issued in response to an invalid specification of a UTILID on an -ALTER UTILITY, -DISPLAY UTILITY, or -TERM UTILITY command. A UTILID is a 1- to 16-byte alphanumeric token that can contain any number of periods.

Severity: 8 (error)

System Action: The -ALTER UTILITY, -DISPLAY UTILITY, or -TERM UTILITY command is rejected. Further processing of the command is ended.

User Response: Review the UTILID provided in the message to determine why it does not conform to the syntax rules of a utility identifier token, and reissue the request.

DSNU111I *csect-name* - SUBPHASE=*subphase-name* COUNT=*n*

Explanation: This message is issued in response to a -DISPLAY UTILITY command. It immediately follows a prior DSNU105I message if the utility is using subtasks to perform processing in parallel. There will be one of these messages for each subtask.

This message gives the user an estimate of how much processing the utility subtask has completed.

SUBPHASE *subphase-name* identifies the activity that the subtask was performing at the time the -DISPLAY UTILITY command was issued.

COUNT *n* is the number of records processed by the utility subtask.

Severity: 0 (informational)

System Action: The system continues processing.

DSNU112I *csect-name* - NO AUTHORIZED UTILITY FOUND FOR UTILID = *utilid*

Explanation: This message is issued in response to an -ALTER UTILITY, -DISPLAY UTILITY, or -TERM UTILITY command. DB2 has no record of the utility job identified by the utility identifier *utilid*. The *utilid* might

not be correct, or the utility might have already terminated.

Severity: 4 (warning)

System Action: The system rejects the -ALTER UTILITY, -DISPLAY UTILITY, or -TERM UTILITY request for the indicated utility job.

User Response: Verify that the utility identifier of the utility job to be altered, displayed, or terminated was correctly entered. To view all currently valid identifiers, issue the -DISPLAY UTILITY (*) or (partial-utility-id*) command.

DSNU114I *csect-name* UTILITY COMMANDS SUBSYSTEM FAILURE, REASON=*Xcode*

Explanation: This message indicates an abend has occurred in the utility commands subsystem.

System Action: The command abends. In the case of the -TERM command, termination actions taken previously under this command are backed out.

User Response: Prior messages and/or the SVC dump identify the failure. If the condition can be corrected, the command may be reissued.

Problem Determination: In most cases, the failure is not user related. In some cases, prior messages indicate a user error that may be corrected. The problem may be as simple as SYSIBM.SYSUTIL being temporarily locked by another command or a utility job. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU115I *csect-name utility-name* UTILITY WITH UTILID = *utilid* CAN ONLY BE TERMINATED BY A MEMBER WITH THE SAME RELEASE = *release*

Explanation: Command TERM UTILITY cannot terminate the utility job with identifier *utilid* because it belongs to a member with a release level identified in the message. Some utilities can be terminated only from a member of the DB2 data sharing group with the same release level.

Severity: 0 (informational)

System Action: Command TERM UTILITY is rejected for the indicated utility job.

User Response: Make sure the *utilid* identifies the utility you want to terminate. If it does, issue command TERM UTILITY from a member with a release level identified in the message in the DB2 data sharing group.

DSNU160I *csect-name - utility-name* **UTILITY, UTILID = *utilid* REQUESTED TO TERMINATE, PHASE = *utility-phase* WAS ACTIVE**

Explanation: This message is issued in response to a -TERM UTILITY command. It acknowledges that the request for termination was received and verified. At the time the -TERM UTILITY request was received, utility '*utility-name*' was ACTIVE in the utility job step identified by UTILID '*utilid*'.

System Action: DB2 has accepted the request to terminate the indicated utility job step. The utility terminates at its next cleanup point.

User Response: This message is an acknowledgement that the request has been accepted and is in progress.

DSNU161I *csect-name - utility-name* **UTILITY WITH UTILID = *util-id* CAN NOT BE TERMINATED AT THE DB2 TRACKER SITE**

Explanation: DB2 does not permit the termination of certain utilities at a tracker site because terminating these utilities may leave the target objects in an unpredictable state. The next recovery cycle should cause the utilities to resolve. You may not terminate the following utilities at a tracker site:

- COPY
- LOAD
- REORG
- REPAIR

Severity: 8 (error)

System Action: The utility does not terminate.

System Programmer Response: Monitor the status of these utilities after the next tracker site recovery cycle.

User Response: Contact the system programmer.

DSNU162I *csect-name - utility-name* **UTILITY WITH UTILID = *util-id* IS TERMINATING WITH OBJECTS THAT HAVE BEEN STARTED WITH ACCESS(FORCE) AND THEN DROPPED**

Explanation: Database objects that are used by the terminating utility were started with the command START DATABASE ACCESS(FORCE) and then dropped.

Severity: 4 (warning)

System Action: Termination process continues.

User Response: If the terminating utility is Online Reorg, TERM UTILITY does not rename and delete residual DB2-managed or user-defined data sets. Those

datasets must be deleted manually.

DSNU164I *csect-name cccccccc* **UTILITY, UTILID = *uuuuu* ALREADY TERMINATING**

Explanation: This message is in response to a -TERM UTILITY command. It indicates that the utility job step indicated by UTILID '*uuuuu*' has already been requested to terminate and is in the process of doing so now.

Severity: 0 (informational)

System Action: DB2 is currently in the process of terminating the indicated utility job step. Upon completion, all resources will have been released to their prior state, and all tracking of the indicated UTILID will have been removed. At that point, the UTILID is available for reuse.

User Response: This message indicates that either the request was redundant, or someone else is also interested in the termination of the subject utility job step.

DSNU166I *csect-name utility-name* **UTILITY, UTILID = *uid* NOT EXECUTING, CLEANUP COMPLETE**

Explanation: This message is in response to a -TERM UTILITY command. The '*utility-name*' utility identified by UTILID '*uid*' was found to be stopped at the time of the request to terminate.

Severity: 0 (informational)

System Action: Cleanup is performed for the indicated stopped utility. All resources held by the utility are freed and all storage of the utility job is deleted. The utility job is no longer restartable.

System Programmer Response: Resources held by this utility may have prevented applications, commands, and other utilities from executing. These have been freed, so that the inhibited tasks may now be performed.

DSNU170I *csect-name* **UTILITY JOB TERMINATED BY TERM COMMAND**

Explanation: A -TERM UTILITY command was issued for this utility job step.

Severity: 8 (error)

System Action: The executing utility terminates processing and frees all held resources. All storage of the utility job has been deleted. Therefore, the job is not restartable. Subsequent utilities in the same job step are not executed.

User Response: All or portions of the utility job step can be resubmitted as needed.

DSNU172I *csect-name* **UTILITY JOB STOPPED BY STOP DB2 COMMAND**

Explanation: A -STOP DB2 command was issued during execution of the utility job step.

Severity: 8 (error)

System Action: The executing utility stops processing but continues to hold resources. Subsequent utilities in the same job step are not executed. The storage of the utility job is retained. Therefore, the utility job step is restartable.

User Response: Following a -START DB2 command, the utility job step may be restarted. Alternatively, the utility may be terminated using the -TERM UTILITY command and resubmitted as a new job. A REORG utility that has passed the UNLOAD phase should rarely be terminated.

DSNU180I *csect-name* **UTILITY IS NOT COMPATIBLE WITH THE** *utility-name* **UTILITY UTILID = uid OBJECT =** *spacename.object-name*

Explanation: Certain utilities cannot process the same table or index space at the same time. The message identifies the objects for which the incompatibility occurred.

These objects might be target objects of the utilities, a mapping table, or they might be catalog or directory table spaces that are updated by the utilities. For example, DSNDB06.SYSCOPY is updated by LOAD.

Severity: 8 (error)

System Action: The starting utility is not initiated, and further utility processing in that utility job step is terminated.

User Response: Use -DISPLAY UTILITY with the provided 'uid' to determine when the utility that caused your utility to be rejected is completed. Refer to Part 5 (Volume 2) of *DB2 Administration Guide* for a discussion of which utilities are mutually compatible.

DSNU181I *csect-name* **RESTART NOT ALLOWED FOR** *utility-name* **UTILITY**

Explanation: An attempt was made to restart the named utility. DB2 does not allow this utility to be restarted.

System Action: Utility processing is abended. Abend reason code 00E40018 might be issued.

User Response: Issue the -TERM UTIL command to terminate the utility job and then rerun the job without the RESTART parameter.

System Programmer Response: If necessary, take actions to prevent access to the table space before terminating the utility.

DSNU182I *csect-name utility-name* **MUST BE THE ONLY UTILITY IN SYSIN**

Explanation: The submitted utility control statements contain a utility on the table space DSNDB01.SYSUTILX. This table space is integral to controlling the execution of utilities. Control over previous or subsequent utilities in the job step would be lost if the utility were allowed to execute. Therefore, the identified utility must be the only utility in a job step.

This message is also issued if you recover the SYSUTILX indexes, DSNLUX01 and DSNLUX02, or table space DSNDB01.DBD01 and include other utility control statements in the same job step.

Additionally, this message will be issued if you invoke either the BACKUP SYSTEM or RESTORE SYSTEM utilities and include additional commands.

Severity: 8 (error)

System Action: Work performed by utilities in the same utility job step prior to the starting utility persist. The utility identified and subsequent utilities are not allowed to execute, and the utility job step is placed in the stopped state.

User Response: Terminate the utility execution that received this message using the -TERM UTILITY command. Submit a subsequent job step containing only the identified utility. Execute additional utilities, if any, in a separate job step.

DSNU183I *csect-name - utility-name* **UTILITY NOT COMPATIBLE WITH OTHER ACTIVE UTILITIES**

Explanation: The utility identified by 'utility-name' is executing against table space DSNDB01.SYSUTILX. This table space is integral to controlling the execution of utilities. Control over other utilities running at the same time would be lost if the utility were allowed to execute. Therefore, the identified utility must be executed alone. There must be no other active DB2 utilities in the system.

Severity: 8 (error)

System Action: Utility execution is terminated.

User Response: Rerun the utility when there are no other utilities executing. Use the -DISPLAY UTILITY command to see what utilities are ACTIVE. Utilities in the STOPPED state are allowed.

DSNU184I *csect-name* **- DO NOT RECOVER OBJECT qual.obj-nm UNTIL THE NEXT TRACKER SITE RECOVERY CYCLE**

Explanation: If DB2 detects an inconsistency relating to a utility's status on object 'qual.obj-nm' at the tracker site, DB2 issues this message. This event can occur if the SYSUTIL record for the utility either does not exist,

or reflects incorrect information about the status of the utility.

Severity: 8 (error)

System Action: The utility issues ABEND04E with return code 00E40009.

User Response: Contact the system programmer.

System Programmer Response: Wait for the next recovery cycle to recover the object named in this message. If the object named in this message is a catalog or directory object, you cannot recover this object, or any other objects in the list of catalog and directory objects, or any user data or indexes. Wait until the next recovery cycle to recover the object.

DSNU185I *csect-name* **THE VSAM DATA SET DOES NOT EXIST FOR** *obj-type*
obj-qual.obj-name part part-number

Explanation: The VSAM data set(s) for the specified object has not been defined yet because the object was created with DEFINE NO.

Severity: 0 (informational)

System Action: The utility skips the object that was created with DEFINE NO, and processing continues.

DSNU200I *csect-name* - **ERROR RANGE ON TABLE SPACE** *database.tablespace-name* **PROHIBITS PROCESSING**

Explanation: The utility encountered an error range on the identified table space or partition, which prohibits it from continuing.

Severity: 8 (error)

System Action: The utility fails serialization and terminates.

User Response: Correct the error range for the table space by running RECOVER ERROR RANGE. Then resubmit the original failing utility.

DSNU201I *csect-name* - **ERROR RANGE ON INDEX** *creator.index-name* **PROHIBITS PROCESSING**

Explanation: The utility encountered an error range on the identified index space or partition which prohibits it from continuing.

Severity: 8 (error)

System Action: The utility fails serialization and terminates.

User Response: Identify the incorrect error range by issuing the DISPLAY command for the index. Run the RECOVER or REBUILD INDEX utility to restore the index or index partition that has the error range. Then resubmit the original failing utility.

DSNU202I *csect-name* - **RECOVER PENDING ON TABLE SPACE** *database.tablespace-name* **PROHIBITS PROCESSING**

Explanation: An attempt was made to execute a utility against a table space that is in a rebuild pending state.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Remove the table space from the rebuild pending state by using either LOAD REPLACE, REBUILD, or REPAIR against the object. LOAD REPLACE with KEEPDICTIONARY is not allowed on a table space (with compression active) in the rebuild pending state. Resubmit the job.

System Programmer Response: Determine which of the three utilities, LOAD REPLACE, REBUILD, or REPAIR, should be used to remove the object from the rebuild pending state.

DSNU203I *csect-name* - **RECOVER PENDING ON INDEX** *creator.index-name* **PROHIBITS PROCESSING**

Explanation: An attempt was made to execute a utility against an index that is in a rebuild pending state.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Remove the index from the rebuild pending state by using the REBUILD INDEX utility against the index. . Resubmit the job.

DSNU204I *csect-name* - **PAGESET REBUILD PENDING ON INDEX** *creator.name* **PROHIBITS PROCESSING**

Explanation: An attempt was made to execute a utility against a logical partition of an index when the index is in PAGESET REBUILD pending state,

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Remove the index space from PAGESET rebuild pending state by running the REBUILD INDEX utility against the entire index, not just a single logical partition. Resubmit the job.

DSNU205I *csect-name* - **LOGICAL ERROR RANGE (LOGICAL PAGE LIST) ON TABLE SPACE** *database.tablespace-name* **PROHIBITS PROCESSING**

Explanation: The utility cannot continue because it encountered a logical error range (logical page list) on the identified table space or partition.

Severity: 8 (error)

System Action: The utility terminates.

User Response: Use the -START DATABASE command to correct the logical error range (LPL) for the table space. Then resubmit the original failing utility.

DSNU206I *csect-name* - **LOGICAL ERROR RANGE (LOGICAL PAGE LIST) ON INDEX**
creator.index-name **PROHIBITS PROCESSING**

Explanation: The utility cannot continue because it encountered a logical error range (logical page list) on the identified index space or partition.

Severity: 8 (error)

System Action: The utility terminates.

User Response: Issue the -DISPLAY command for the index to identify the logical error range (LPL). There are two ways to restore the index or index partition that has the LPL before resubmitting the original failed utility.

- Issue the START DATABASE command to clear the LPL status, then run the RECOVER or REBUILD INDEX utility.
- Run the RECOVER or REBUILD INDEX utility to restore the entire nonpartitioning index (NPI).

DSNU207I *csect-name* - **GROUP BUFFER POOL RECOVERY PENDING ON TABLE SPACE** *database.tablespace-name*
PROHIBITS PROCESSING

Explanation: You cannot execute a utility on a table space that is in a group buffer pool recovery pending status.

Severity: 8 (error)

System Action: Utility processing does not start.

User Response: Use the -START DATABASE command to remove the table space from the group buffer pool recovery pending status. Then resubmit the job.

DSNU208I *csect-name* - **GROUP BUFFER POOL RECOVERY PENDING ON INDEX**
creator.index-name **PROHIBITS PROCESSING**

Explanation: You cannot execute a utility on an index that is in a group buffer pool recovery pending (GRECP) status.

Severity: 8 (error)

System Action: Utility processing does not start.

User Response: Run the REBUILD INDEX utility on the index to remove the table space from the group buffer pool recovery pending status. Then resubmit the job.

DSNU209I *csect-name* - **RESTART PENDING ON**
obj-type database.tablespace-name
PROHIBITS PROCESSING

Explanation: An attempt was made to execute a utility against a table space or index space that is in a restart pending state.

Severity: 8 (error)

System Action: Utility processing is not initiated.

System Programmer Response: Use the DISPLAY THREAD TYPE(POSTPONED) to determine the status of the resource. Use the RECOVER POSTPONED command if recover has not already been started. Resubmit the job.

DSNU210I *csect-name* - **INFORMATIONAL COPY PENDING ON** *obj-type obj-qual.obj-name*
PROHIBITS PROCESSING

Explanation: An attempt was made to execute the RECOVER utility with the ERROR RANGE or PAGE options against an index in the informational copy pending state.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Use the REBUILD INDEX utility instead.

DSNU211I *csect-name* **CHECK PENDING ON**
obj-type obj-qual.obj-name **PROHIBITS PROCESSING**

Explanation: The requested utility can not be run against an index in the check pending state. The index may be out of sync with its table space.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Run either the CHECK INDEX utility or the REBUILD INDEX utility. The CHECK INDEX utility will identify any errors (for example, if the index keys do not match the data in the table space.) If there are no errors, the check pending state will be reset. The REBUILD INDEX utility will rebuild the index from the data in the table space.

DSNU212I *csect-name* - **REORG PENDING ON TABLE SPACE** *database.index-name*
PROHIBITS PROCESSING

Explanation: An attempt was made to execute a utility against a table space that is in a REORG PENDING state.

Severity: 8 (error)

System Action: Utility processing is not initiated.

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User Response: Execute REORG with SHRLEVEL NONE against the partitions in REORG PENDING state to rebalance the partitions and remove the REORG PENDING state.

DSNU213I *csect-name* - **AUX CHECK PENDING ON TABLE SPACE** *table-space* **PROHIBITS PROCESSING**

Explanation: The *processing* is prohibited because the *table-space* is in an AUX CHECK PENDING state.

System Action: Utility terminates and returns completion code=8.

Programmer Response:

Run the CHECK DATA utility with the AUXERROR INVALIDATE option. If there are no AUX CHECK errors, AUX CHECK PENDING will be reset. If AUX CHECK errors are found, AUX CHECK PENDING will be reset and the table space will be set to an AUX WARNING state. This allows the rows with AUX CHECK errors to be corrected. Correct the errors and rerun CHECK DATA. If no more AUX CHECK errors are found, the AUX WARNING state will be reset.

DSNU214I *csect-name* - **REBUILD PENDING ON INDEX** *creator.index-name* **PROHIBITS PROCESSING**

Explanation: An attempt was made to execute a utility against an index that is in rebuild pending state.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Remove the index from the rebuild pending state by using REBUILD INDEX against the index, then resubmit the job.

DSNU215I *csect-name* **REFRESH PENDING ON** *ob-type database.objectname* **PROHIBITS PROCESSING**

Explanation: DB2 attempted to execute a utility against a table space or index that has refresh pending status.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: If the object in refresh pending status is a table space, use the RECOVER utility to recover the table space to a prior point in time. You can also reload the table space with LOAD REPLACE. If the object in refresh pending status is an index, use the REBUILD INDEX utility to rebuild the index from the data.

DSNU231I *csect-name* **DICTIONARY WITH n ENTRIES HAS BEEN SUCCESSFULLY BUILT FROM m ROWS FOR TABLESPACE** *tablespace-name*

Explanation: A compression dictionary was built for the specified tablespace. This message is issued during the RELOAD phase of the LOAD utility and at the end of the UNLOAD phase of the REORG utility.

The variable n is the number of dictionary entries, and can be any of the following values: 512, 1024, 2048, 4096, or 8192. n depends on the number of rows being loaded or reorganized.

m is the number of rows used to build the dictionary.

Severity: 0 (informational)

System Action: Processing continues.

DSNU232I *csect-name* **KEEPDICTIONARY REQUESTED BUT COMPRESS ATTRIBUTE NOT DEFINED FOR TABLE SPACE** *table-space-name*

Explanation: The KEEPDICTIONARY option was specified in the LOAD or REORG TABLESPACE statement. This keyword should only be used with table spaces that have the COMPRESS YES attribute. Otherwise, it is ignored. The COMPRESS column of SYSIBM.SYSTABLEPART contains the current compression status.

Severity: 4 (warning)

System Action: Processing continues. If the dictionary exists, it is erased if LOAD REPLACE or REORG is specified.

DSNU233I *csect-name* **COMPRESSION DICTIONARY DOES NOT EXIST FOR TABLE SPACE** *table-space-name*

Explanation: The KEEPDICTIONARY option was specified in the LOAD or REORG TABLESPACE utility statement for a table space that does not have a compression dictionary.

Severity: 4 (warning)

System Action: Processing continues. A dictionary is built for the table space.

DSNU234I *csect-name* **COMPRESSION REPORT FOR TABLE SPACE** *table-space-name*

:
noncmpbytes
KB WITHOUT COMPRESSION
cmpbytes
KB WITH COMPRESSION

percsave
PERCENT OF THE BYTES SAVED FROM
COMPRESSED DATA ROWS

pctrowcomp
PERCENT OF THE LOADED ROWS WERE
COMPRESSED

noncmppages
PAGES REQUIRED WITHOUT
COMPRESSION

cmppages
PAGES REQUIRED WITH COMPRESSION

auncmprowlen
BYTES FOR AVERAGE UNCOMPRESSED
ROW LENGTH

avgcmpprowlen
BYTES FOR AVERAGE COMPRESSED ROW
LENGTH

pagesave
PERCENT OF THE DB2 DATA PAGES SAVED
USING COMPRESSED DATA

Explanation: The data in the table space was compressed. This message is issued at the end of the RELOAD phase for the LOAD and REORG utility. The statistics that follow apply only to the data that was loaded or reorganized. For example, RESUME(YES) reports statistics only on the additional rows that were loaded, not what was previously in the table space.

The compression statistics follow:

noncmpbytes
The total number of uncompressed KB (where KB = 1024 bytes) for the loaded or reorganized data rows (including the row prefix). This number was rounded to the nearest KB.

cmpbytes
The total number of compressed KB for the loaded or reorganized data rows (including the row prefix). This number was rounded to the nearest KB.

percsave
The percentage of bytes saved from the loaded or reorganized data rows as a result of compression.

The values above reflect only the number of bytes for the data row and the respective row prefix (6 bytes). DB2 page and dictionary page overhead is not included.

pctrowcomp
The percentage of the rows that were compressed within the total number of rows that were loaded or reorganized. The stored length and the external length of a row was compared to determine if the row was compressed. If an EDITPROC is involved, its effect on the length of the row is considered in the calculation.

noncmppages
The estimated number of DB2 pages required

by the uncompressed data rows that were loaded or reorganized. Space required for PCTFREE and FREEPAGE is included. This number was rounded up to the next integer.

cmppages
The estimated number of DB2 pages required by the compressed data rows that were loaded or reorganized. Space required for PCTFREE and FREEPAGE is included. Dictionary pages are also included unless a LOAD RESUME(YES) was run. This number was rounded up to the next integer.

auncmprowlen
Average uncompressed row length.

avgcmpprowlen
Average compressed row length.

pagesave
An estimate of the percentage of DB2 pages saved by compressing the loaded or reorganized data rows.

Severity: 0 (informational)

System Action: Processing continues.

DSNU235I *csect-name* **THE COMPRESSION
DICTIONARY WAS NOT BUILT FOR
TABLE SPACE** *table-space-name*

Explanation: There is insufficient data to build a compression dictionary. For the LOAD utility, the input data set is empty or all of the input records were discarded. For the REORG TABLESPACE utility, the table space is empty. The data was not compressed.

Severity: 4 (warning)

System Action: Processing continues.

User Response: The input data set must contain data in order to build a compression dictionary while running the LOAD utility. Ensure that the input records are not discarded by the WHEN clause or conversion errors. For the REORG TABLESPACE utility, the table space must be populated with data in order to build a compression dictionary.

DSNU236I *csect-name* **DICTIONARY FOR TABLE
SPACE** *table-space-name* **HAS BEEN
ERASED.**

Explanation: The compression dictionary of the specified table space was erased.

The COMPRESS attribute of the table space is NO, and there are no active rows in this table space. In this case, the LOAD RESUME NO utility erases the dictionary.

Severity: 0 (informational)

System Action: Processing continues.

DSNU237I TABLE *table2* IS NOT IN SAME TABLESPACE AS TABLE *table1*

Explanation: All source tables for a single LOAD utility statement must be in the same table space.

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Remove the INTO TABLE control statement that specifies *table2* from the current LOAD request. Create another LOAD utility statement that contains the INTO TABLE control statement for *table2* so that all source tables in a single LOAD request are from the same table space. Resubmit the job.

DSNU241I *csect-name* DICTIONARY WITH *n* ENTRIES HAS BEEN SUCCESSFULLY BUILT FROM *m* ROWS FOR TABLE SPACE *table-space-name*, PARTITION *part-num*

Explanation: A compression dictionary was built for the specified partition of the table space. This message is issued during the RELOAD phase of the LOAD utility and at the end of the UNLOAD phase of the REORG utility.

The variable *n* is the number of dictionary entries: 512, 1024, 2048, 4096, or 8192. *n* depends on the number of rows being loaded or reorganized.

m is the number of rows used to build the dictionary.

Severity: 0 (informational)

System Action: Processing continues.

DSNU242I *csect-name* KEEPDICTIONARY REQUESTED BUT COMPRESS ATTRIBUTE NOT DEFINED ON TABLE SPACE *table-space-name*, PARTITION *part-num*

Explanation: The KEEPDICTIONARY option was specified in the LOAD or REORG TABLESPACE utility statement. This keyword should only be used with table space partitions that have the COMPRESS YES attribute. Otherwise, it is ignored. The COMPRESS column of SYSIBM.SYSTABLEPART contains the current compression status.

Severity: 4 (warning)

System Action: Processing continues. If the dictionary exists, it is erased if LOAD REPLACE or REORG is specified.

DSNU243I *csect-name* COMPRESSION DICTIONARY DOES NOT EXIST FOR TABLE SPACE *table-space-name*, PARTITION *part-num*

Explanation: The KEEPDICTIONARY option was specified in the LOAD or REORG TABLESPACE utility statement for a table space partition that does not have a compression dictionary.

Severity: 4 (warning)

System Action: Processing continues. A dictionary is built for the table space partition.

DSNU244I *csect-name* COMPRESSION REPORT FOR TABLE SPACE *table-space-name*, PARTITION *part-num*

:

noncmpbytes
KB WITHOUT COMPRESSION

cmpbytes
KB WITH COMPRESSION

percsave
PERCENT OF THE BYTES SAVED FROM COMPRESSED DATA ROWS

ptrowcomp
PERCENT OF THE LOADED ROWS WERE COMPRESSED

noncmppages
PAGES REQUIRED WITHOUT COMPRESSION

cmppages
PAGES REQUIRED WITH COMPRESSION

auncmprowlen
BYTES FOR AVERAGE UNCOMPRESSED ROW LENGTH

avgcmprowlen
BYTES FOR AVERAGE COMPRESSED ROW LENGTH

pagesave
PERCENT OF THE DB2 DATA PAGES SAVED USING COMPRESSED DATA

Explanation: The data in the table space partition was compressed. This message is issued at the end of the RELOAD phase for the LOAD and REORG utility. The statistics that follow apply only to the data that was loaded or reorganized. For example, RESUME(YES) reports statistics only on the additional rows that were loaded, not what was previously in the table space.

The compression statistics follow:

noncmpbytes
The total number of uncompressed KB (where KB = 1024 bytes) for the loaded or reorganized data rows (including the row prefix). This number was rounded to the nearest KB.

cmpbytes
The total number of compressed KB for the

loaded or reorganized data rows (including the row prefix). This number was rounded to the nearest KB.

percsave

The percentage of bytes saved from the loaded or reorganized data rows as a result of compression.

The values above reflect only the number of bytes for the data row and the respective row prefix (6 bytes). DB2 page and dictionary page overhead is not included.

pctrowcomp

The percentage of the rows that were compressed within the total number of rows that were loaded or reorganized. The stored length and the external length of a row was compared to determine if the row was compressed. If an EDITPROC is involved, its effect on the length of the row is considered in the calculation.

noncmppages

The estimated number of DB2 pages required by the uncompressed data rows that were loaded or reorganized. Space required for PCTFREE and FREEPAGE is included. This number was rounded up to the next integer.

cmppages

The estimated number of DB2 pages required by the compressed data rows that were loaded or reorganized. Space required for PCTFREE and FREEPAGE is included. Dictionary pages are also included unless a LOAD RESUME(YES) was run. This number was rounded up to the next integer.

auncmprowlen

Average uncompressed row length.

avgcmprowlen

Average compressed row length.

pagesave

An estimate of the percentage of DB2 pages saved by compressing the loaded or reorganized data rows.

Severity: 0 (informational)

System Action: Processing continues.

DSNU245I *csect-name* **THE COMPRESSION DICTIONARY WAS NOT BUILT FOR TABLE SPACE** *table-space-name*, **PARTITION** *part-num*

Explanation: There is insufficient data to build a compression dictionary. For the LOAD utility, the input data set is empty or all of the input records were discarded. For the REORG TABLESPACE utility, the partition is empty. The data was not compressed.

Severity: 4 (warning)

System Action: Processing continues.

User Response: The input data set must contain data in order to build a compression dictionary while running the LOAD utility. Ensure that the input records are not all being discarded by the WHEN clause or conversion errors. For the REORG TABLESPACE utility, the partition must be populated with data in order to build a compression dictionary.

DSNU246I *csect-name* **DICTIONARY FOR TABLE SPACE** *table-space-name*, **PARTITION** *part-num* **HAS BEEN ERASED.**

Explanation: The compression dictionary of the specified partition of the table space was erased.

The COMPRESS attribute of the table space partition is NO, and there are no active rows in this partition. In this case, the LOAD RESUME NO utility erases the dictionary.

Severity: 0 (informational)

System Action: Processing continues.

DSNU250I *csect-name* **UNLOAD PHASE COMPLETE, ELAPSED TIME =** *hh/mm/ss*

Explanation: The UNLOAD phase of the REORG utility completed normally. The time that elapsed between the beginning of the REORG utility and the completion of the UNLOAD phase was hh/mm/ss, hours, minutes, and seconds, respectively.

Severity: 0 (informational)

System Action: Action subsequent to this message depends on the UNLOAD option of the REORG utility statement:

- If the UNLOAD option is CONTINUE, execution of the utility continues into the RELOAD phase.
- If the UNLOAD option is PAUSE, execution of the utility is stopped at the beginning of the RELOAD phase.
- If the UNLOAD option is ONLY or EXTERNAL, the REORG utility is finished. Processing continues to the next utility in the utility job step, or, if there are no more utility statements, the utility job step terminates normally.

User Response: The user's response depends on the UNLOAD option in the REORG utility statement.

- If the UNLOAD option is CONTINUE, no user response is required. The message is informational only.
- If the UNLOAD option is PAUSE, the REORG utility is stopped in the reload phase. To complete the REORG process, the user must explicitly restart the utility job step using the RESTART(PHASE) option.

- If the UNLOAD option is ONLY or EXTERNAL, the REORG utility has completed, and the requested output is on the data set identified by the DD statement of the UNLDDN REORG utility statement option.

Operator Response: The operator's response depends on the UNLOAD option of the REORG statement:

- If the UNLOAD option is CONTINUE, no operator response is required. The execution of the REORG utility is proceeding.
- If the UNLOAD option is PAUSE, further processing is dependent upon restarting the utility job step with the RESTART(PHASE) option. Until that time, resources are held exclusively by the REORG utility job step.
- If the UNLOAD option is ONLY or EXTERNAL, the REORG utility processing is complete. The data set defined by the DD statement nominated by the UNLDDN option is available for installation disposition.

DSNU251I *csect-name* **UNLOAD PHASE STATISTICS. NUMBER OF RECORDS UNLOADED=** *mmmmmm* **FOR** *obj-type qbj-qual.obj-name* **PART** *nn*

Explanation: This message is issued at the completion of the UNLOAD phase of the REORG utility. It gives the number of records that were unloaded *mmmmmm* for partition *nn* of the tablespace, index, or indexspace that was specified. The count can indicate the amount of processing.

Severity: 0 (informational)

System Action: Only valid table records are unloaded. Dropped table record counts are not reported.

User Response: The record count represents the current cardinality of the table or index that was indicated in the error message. Consider invoking the RUNSTATS utility and then rebinding the involved PLANS if this value differs greatly from the SYSTABLE.CARD value so that the SQL optimizer can bring the PLANS up to date.

Operator Response: Count can be indicative of the amount of processing that remains.

DSNU252I *csect-name* **UNLOAD PHASE STATISTICS. NUMBER OF RECORDS UNLOADED=** *mmmmmm* **FOR** *obj-type qbj-qual.obj-name*

Explanation: This message is issued at the completion of the UNLOAD phase of the REORG utility. It gives the number of records that were unloaded *mmmmmm* for the tablespace, index, or indexspace that was indicated in the error message.

Severity: 0 (informational)

System Action: Only valid table or index records are unloaded. Dropped table record counts are not reported.

User Response: Record count represents the current cardinality of the table or index that was specified in the error message. Invocation of the RUNSTATS utility and a subsequent rebinding of the involved PLANS should be considered if this value differs greatly from the SYSTABLE.CARD value, so that the SQL optimizer can bring the PLANS up to date.

Operator Response: Count can be indicative of the amount of processing remaining.

DSNU253I *csect-name* **UNLOAD PHASE STATISTICS. NUMBER OF RECORDS** *action= mmmmmm* **FOR TABLE** *table-name*

Explanation: This message is issued at the completion of the UNLOAD phase of the REORG utility. If *action* is "UNLOADED", it gives the number of records *mmmmmm* that were unloaded for the specified table name. If *action* is "DISCARDED", it gives the number of records *mmmmmm* that were discarded for the specified table name.

Severity: 0 (informational)

System Action: Table records were unloaded or discarded.

DSNU254I *csect-name* - **RECORD COUNTS INCONSISTENT FOR** *pppppppp* **PHASE, NUMBER OF RECORDS EXPECTED =** *nnnnnnnn*, **NUMBER OF RECORDS PROCESSED =** *aaaaaaaa*

Explanation: This message is issued during the *pppppppp* phase for the REORG utility to report the condition where the number of records, *nnnnnnnn*, passed to the current phase is not equal to the number of records, *aaaaaaaa*, processed in this phase.

Severity: 4 (warning)

System Action: Processing continues if UNLOAD PAUSE option was used.

User Response: Check if unload data set was altered by user. Determine if the inconsistent record counts between the unload and reload phases is a potential problem. If it is an internal DB2 problem, report to system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the unload data set was manipulated by user during restart process, make sure it was handled properly. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference*

for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSNU255I *csect-name* - **KEY COUNT INCONSISTENT FOR *pppppppp* PHASE, NUMBER OF KEYS EXPECTED = *nnnnnnnn*, NUMBER OF KEYS PROCESSED = *aaaaaaa*.**

Explanation: This message is issued during the *pppppppp* phase for the LOAD or REORG utility to report the condition where the number of keys, *nnnnnnnn*, passed to the current phase is not equal to the number of keys, *aaaaaaa*, processed in this phase. One or more of the affected indexes may be inconsistent.

Severity: 8 (error)

System Action: Processing stops and all indexes are placed in rebuild pending state.

User Response: TERM the utility and re-access the indexes by running REPAIR utility to reset the rebuild-pending states on indexes. Run the CHECK INDEX utility to determine if any of the affected indexes are inconsistent. Inconsistent indexes can be rebuilt by the REBUILD INDEX utility.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the working data set was manipulated by the user during the restart process, make sure it was handled properly. Refer to *DB2 Utility Guide and Reference*.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU256I *csect-name* **INVALID PARTITION SPECIFICATION**

Explanation: This message is issued by the utility in response to an invalid PART option specification.

The PART option is invalid in the following situations:

- when it is specified for a nonpartitioned table space
- if the indicated PART integer is not pertinent to the partitions existing for the indicated table space
- or if a ROWID column is part of the partitioning key
- if LOAD INTO TABLE PART *x* is performed on a table space where an identity column is part of the partitioning key

The utility job step is terminated.

System Action: The error is sufficient to terminate

further processing of the utility job step. The utility job step is terminated, and resources are released to their previous state.

User Response: Determine the correct partition specification for the table space that was the subject of the specified control utility statement, and resubmit the utility job step. Examine the SYSIBM.SYSTABLESPACE in the DB2 catalog for the correct range of partition numbers for the table space. If a ROWID column is part of the partitioning key, the PART option is invalid.

DSNU257I *csect-name* **UNABLE TO RESTART BUILD PHASE**

Explanation: Restarting in the BUILD PHASE or the SORTBLD phase of the LOAD utility with the RESUME(YES) option is not permitted.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Recover all indexes within the table space which were left in a rebuild pending state when the LOAD utility failed.

Problem Determination: Refer to *DB2 Utility Guide and Reference* and Part 2 (Volume 1) of *DB2 Administration Guide* for a discussion of LOAD restarting constraints.

DSNU258I *csect-name* **BUILD PHASE STATISTICS. NUMBER OF INDEXES = *mmm***

Explanation: This message is issued at normal completion of the BUILD phase of the LOAD or REORG or REBUILD INDEX utility. The number of indexes that were updated is indicated as '*mmm*'.

Severity: 0 (informational)

System Action: The BUILD phase of either the LOAD or REORG or REBUILD INDEX utility is completed. Upon completion of the utility job step, they are available for REFERENCE processing.

DSNU259I *csect-name* **BUILD PHASE COMPLETE, ELAPSED TIME = *hh/mm/ss***

Explanation: This message is issued at the normal completion of the BUILD phase of the REORG, LOAD, and REBUILD INDEX utilities. The time that has elapsed between the beginning of the phase and the completion of this phase was '*hh*' hours, '*mm*' minutes, and '*ss*' seconds.

System Action: Processing continues to the next phase of the LOAD or REORG or REBUILD INDEX utility. If this is the last phase, processing continues to the next utility statement in the utility job step, if any.

DSNU260I *csect-name obj-type obj-qual.obj-name* IS
EMPTY

Explanation: This message is issued as a warning when REBUILD INDEX(ALL) or REORG TABLESPACE are executed on an empty table space.

This message is also issued when COPY detects that the first space map page in the table space or partition is missing. This is an error condition that might be caused by a delete and redefine of the data set outside of DB2, or by a previous DB2 failure that occurred on the data set.

Severity: 4 (warning) or 8 (error)

System Action: For REBUILD INDEX or REORG TABLESPACE, the return code of 4 will allow the next utility function in the job step, if any, to be initiated.

For COPY, the table space, index space, or partition being copied will be placed in recover pending status. The return code of 8 will prohibit further utility processing in the job step.

User Response: Notify the system programmer if the return code is 8. If the return code is 4, no action is required.

System Programmer Response: If the return code is 8, the table space, indexspace, or partition being copied should be recovered with the RECOVER utility.

DSNU269I *csect-name* FIELD *field-name* IS NOT
ALLOWED

Explanation: You specified a ROWID GENERATED ALWAYS in the field specification list. Only a ROWID GENERATED BY DEFAULT is allowed to be specified in the field specification list.

Identity columns that were defined as GENERATED ALWAYS can not be specified in a LOAD field specification list, nor can these columns be implied in LOAD FORMAT UNLOAD or LOAD with no field specification list.

Severity: 8 (error)

System Action: The LOAD utility is terminated

User Response: Omit the ROWID GENERATED ALWAYS column from the LOAD field specification list and rerun the job.

DSNU270I *csect-name - table-name, column-name*
IN VIOLATION OF INSTALLATION
DEFINED FIELD PROCEDURE
procedure-name. function-code,
return-code, reason-code, message-token

Explanation: An installation-supplied field procedure has returned an error during encoding for LOAD or decoding for REORG. See SQLCODE -681 for more detail.

Severity: 8 (error)

System Action: The utility will issue a system '04E' abend with a reason code of '00E40336'.

User Response: Request the dump produced as a result of the error to the system programmer so that the cause of the error can be determined and corrected.

System Programmer Response: Examine the field procedure to determine why an error return code was generated. Refer to *DB2 Utility Guide and Reference* for more information.

DSNU271I *csect-name - REORG PENDING ON FOR*
TABLE SPACE *database.index-name*
PART *part number* PROHIBITS
PROCESSING

Explanation: An attempt was made to execute a REORG utility to redistribute data in a partitioned table space. The partition number stated in this message was found to have the REORP state on, but was not specified on the PART *n1:n2* parameter of the REORG utility.

If you are running REORG to materialize identity column values, you must reorganize the entire table space.

Severity: 8 (error)

System Action: Utility processing is not initiated.

System Programmer Response: Identify the correct partition range specification for the REORG utility by issuing the DISPLAY command for the table space, and resubmit the utility job step.

DSNU272I *csect-name - FIELD PROCEDURE*
procedure-name COULD NOT BE
LOADED

Explanation: An installation supplied field procedure could not be loaded during encoding for LOAD or decoding for REORG. See SQLCODE -682 for more detail.

Severity: 8 (error)

System Action: The utility will terminate with a return code of 8.

User Response: Take the job output to the system programmer.

System Programmer Response: Determine why the field procedure could not be loaded.

DSNU273I *csect-name - REORG WITH SHRLEVEL*
REFERENCE OR CHANGE CANNOT
APPLY TO TABLE SPACE *name* PART
n1:n2

Explanation: REORG with SHRLEVEL REFERENCE or CHANGE cannot be used on table space partitions with REORG PENDING restrictive state.

Severity: 8 (error)

System Action: The REORG utility job is terminated.

User Response: Execute REORG with SHRLEVEL NONE against the partitions in REORG PENDING state to rebalance the partitions and remove the REORG PENDING state.

DSNU280I *csect-name* - ERROR=X'reason-code'
FROM EDIT ROUTINE *procedure-name*
FOR *table-name*

Explanation: The edit routine provided by your installation has returned an error during the load of a record into the table indicated. The reason code is set by the edit routine.

Severity: 8 (error)

System Action: The LOAD or REORG utility will receive ABEND04E RC00E40323.

User Response: Correct any errors in the input data. Ensure that the edit routine provided is correct. The utility can be restarted or terminated.

System Programmer Response: Verify that the edit routine is correct.

DSNU281I *csect-name* RECORD (*n*) OF TABLE
table-name VIOLATING VALID ROUTINE
validproc-name, ERROR
CODE=X'reason-code'

Explanation: The validation exit routine provided by your installation blocked the load of record 'n' into TABLE 'table-name'. The reason-code was set by the exit routine.

Severity: 4 (warning)

System Action: The LOAD utility continues to process the following input record.

User Response: Check the error input records against the error reason code returned from the validation procedure. Refer to *DB2 Utility Guide and Reference* for a definition of LOAD input field column specifications.

System Programmer Response: Verify that the validation routine is correct.

DSNU282I *csect-name* UNABLE TO RESTART AT
LAST CHECKPOINT WITH DDNAME
'ddddddd'

Explanation: The data set with DDNAME 'ddddddd' is a concatenated data set and the utility can be restarted only at the beginning of the phase (RESTART PHASE), not at the last checkpoint (RESTART CURRENT).

Severity: 8

System Action: The utility will issue a system '04E'

abend with a reason code of '00E40323'.

User Response: Change the RESTART option to RESTART PHASE and resubmit the job step.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSNU283I *csect-name* TRIGGER ERROR:
SQLCODE = *sqlcode*, SQLERRM =
sqlerrm, SQLSTATE = *sqlstate*,
SQLERRP = *sqlerrp*, SQLERRD =
sqlerrd1 sqlerrd2 sqlerrd3 sqlerrd4
sqlerrd5 sqlerrd6

Explanation: This message contains multiple components. SQLCODE is the SQL return code. If the SQL return code is negative, this indicates that an error has occurred. For more information about this SQL return code, see Part 2, "SQL return codes," on page 11. SQLERRP is the name of the procedure that detected an error. The SQL diagnostic information can be found in the SQLERRD1, SQLERRD2, SQLERRD3, SQLERRD4, SQLERRD5, and SQLERRD6 fields.

Severity: 8 (Error)

System Action: Processing terminates.

User Response: Determine the cause for the SQL error by using information about the specific SQLCODE. Correct the error, and rerun the utility.

DSNU284I *csect-name* - LOAD UTILITY NOT
ALLOWED AGAINST A
SYSTEM-MAINTAINED MATERIALIZED
QUERY TABLE *table-name*

Explanation: An attempt has been made to run the LOAD utility against a system-maintained materialized query table. This is not allowed.

Severity: 8

System Action: Utility processing terminates.

User Response: If the table name was incorrect, correct the table name and resubmit the utility job step. Otherwise, take one of the following actions:

- Use the REFRESH TABLE SQL statement to insert data into the system-maintained materialized query table.
- Use the ALTER statement to change the materialized query table to a user-maintained materialized query table or a base table, and resubmit the utility job step.

DSNU286I *csect-name* REORG TABLESPACE
dbname.tsname OFFPOSLIMIT
SYSINDEXPART ROWS

Explanation: This is the header message for the SYSINDEXPART section of the REORG TABLESPACE

DSNU287I • DSNU289I

OFFPOSLIMIT output. This section lists the SYSINDEXPART rows for the table space or table space partition as specified in the REORG TABLESPACE input statement. The fields from SYSINDEXPART are:

CREATOR

Index creator name

IXNAME

Index name

CREATOR

Table creator name

TBNAME

Table name

PART Partition number

CARDF

Number of rows referenced (floating point)

FAROFFPOSF

Number of rows referenced afar (floating point)

NEAROFFPOSF

Number of rows referenced nearby (floating point)

STATTIME

TIMESTAMP of RUNSTATS update

Rows which meet the OFFPOSLIMIT criteria are prefaced with '*'.
Severity: 0 (informational)

System Action: Processing continues normally

User Response: If the TIMESTAMP reported in the STATTIME column is not recent, the OFFPOSLIMIT criteria might be evaluated with obsolete statistics.

DSNU287I *csect-name* **REORG TABLESPACE**
dbname.tsname **INDREFLIMIT**
SYSTABLEPART ROWS

Explanation: This is the header message for the SYSTABLEPART section of the REORG TABLESPACE INDREFLIMIT output. This section lists the SYSTABLEPART rows for the table space or table space partition as specified in the REORG TABLESPACE input statement. The fields from SYSTABLEPART are:

DBNAME

Database name

TSNAME

Table space name

PART Partition number

CARD Number of rows in table space

FARINDREF

Number of rows relocated afar

NEARINDREF

Number of rows relocated nearby

STATTIME

TIMESTAMP of RUNSTATS update

Rows which meet the INDREFLIMIT criteria are prefaced with '*'.
Severity: 0 (informational)

System Action: Processing continues normally

User Response: If the TIMESTAMP reported in the STATTIME column is not recent, the INDREFLIMIT criteria might be evaluated with obsolete statistics.

DSNU288I *csect-name* **REORG INDEX**
dbname.ixname **LEAFDISTLIMIT**
SYSINDEXPART ROWS

Explanation: This is the header message for the SYSINDEXPART section of the REORG INDEX LEAFDISTLIMIT output. This section lists the SYSINDEXPART rows for the index or index partition as specified in the REORG INDEX input statement. The fields from SYSINDEXPART are:

CREATOR

Index creator name

IXNAME

Index name

PART Partition number

LEAFDIST

Number of pages between leaf pages multiplied by 100

STATTIME

TIMESTAMP of RUNSTATS update

Rows which meet the LEAFDISTLIMIT criteria are prefaced with '*'.
Severity: 0 (informational)

System Action: Processing continues normally

User Response: If the TIMESTAMP reported in the STATTIME column is not recent, the LEAFDISTLIMIT criteria might be evaluated with obsolete statistics.

DSNU289I *csect-name type* **REORG LIMITS HAVE BEEN MET**

Explanation: The REORG utility is indicating whether any specified limits have been met. For REORG TABLESPACE, this might be the OFFPOSLIMIT or the INDREFLIMIT. For REORG INDEX, this is the LEAFDISTLIMIT. *type* values:

NO If no limits are met.

blank If at least one limit is met.

Severity: The return codes are:

1 (informational)

If no limit is met.

2 (informational)

If at least one limit is met.

System Action: Utility processing continues.

User Response: If the REPORTONLY option is specified and the result of this job step is not used to conditionally execute other job steps, examine the utility messages for this table space, partition, or index to determine if a REORG should be performed.

DSNU290I *csect-name type* **REORG WILL BE PERFORMED**

Explanation: The REORG utility is indicating whether any specified limits have been met and whether a REORG will be performed. For REORG TABLESPACE, this might be the OFFPOSLIMIT or the INDREFLIMIT. For REORG INDEX, this is the LEAFDISTLIMIT. *type* values:

NO If no limits are met.

blank If at least one limit is met.

Severity: 0 (informational)

System Action: Utility processing continues. A REORG is performed if any limits are met.

DSNU291I **MAXIMUM COMPOSITE UNLOAD RECORD SIZE TOO LARGE FOR SORT. SORTDATA KEYWORD IS IGNORED.**

Explanation: The SORTDATA keyword was specified for a REORG utility job. However, the largest possible record in the table space, prefixed by the largest key, produces a composite record that is too large to be processed by the SORT component. The SORTDATA keyword is ignored.

This message is issued by the following CSECT:
DSNURFIT

Severity: 0

System Action: Processing continues normally.

User Response: If you must use SORTDATA for the table space, try reducing the size of either the largest record or key field by redefining the table. In some cases, changing a field from LONG VARCHAR to VARCHAR with a specified maximum length might help.

Problem Determination: This problem should only occur on a table space with a 32KB page size. Analyze the requirement for maximum data length in VARCHAR and LONG VARCHAR columns to see if a shorter length can be specified. It might be necessary to remove the SORTDATA keyword from the utility statement.

DSNU292I *csect-name* - **-ALTER UTILITY CANNOT APPLY TO THIS UTILITY, REASON=c**

Explanation: The -ALTER UTILITY command only applies to a job that is executing REORG with SHRLEVEL REFERENCE or CHANGE. In addition, if -ALTER UTILITY specifies MAXRO, LONGLOG, or DELAY, the job must be executing REORG with SHRLEVEL CHANGE.

1 The job is not executing REORG with SHRLEVEL REFERENCE or CHANGE.

2 -ALTER UTILITY specifies MAXRO, LONGLOG, or DELAY, but the job is executing REORG with SHRLEVEL REFERENCE.

Severity: 8 (error)

System Action: -ALTER UTILITY does not execute.

User Response: Apply -ALTER UTILITY to a job that is executing the proper utility.

DSNU293I *csect-name* - **REORG WITH SHRLEVEL REFERENCE OR CHANGE CANNOT APPLY TO THE *name* TABLE SPACE**

Explanation: REORG with SHRLEVEL REFERENCE or CHANGE cannot operate on the following catalog and directory table spaces: DSNDB06.SYSDBASE, DSNDB06.SYSDBAUT, DSNDB06.SYSGROUP, DSNDB06.SYSPLAN, DSNDB06.SYSVIEWS, and DSNDB01.DBD01.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Execute REORG with SHRLEVEL NONE.

DSNU294I *csect-name* - **LARGEST COMPOSITE RECORD IS TOO BIG FOR REORG WITH SHRLEVEL CHANGE**

Explanation: SHRLEVEL CHANGE was specified for a REORG utility job, and the table has a clustering index. However, the largest possible record in the table space, prefixed by the largest key, produces a composite record that is too large to be processed by the SORT component. See the computation of the length under REORG in the *DB2 Utility Guide and Reference*. If the largest possible composite record to be sorted exceeds 32760 bytes in length, which is the maximum record size for a BSAM data set, REORG cannot operate if SHRLEVEL CHANGE is specified.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Execute REORG with SHRLEVEL NONE or REFERENCE. If you must use SHRLEVEL CHANGE for the table space, try reducing the size of either the largest record or key field by redefining the

table. In some cases, changing a field from LONG VARCHAR to VARCHAR with a specified maximum length might help.

Problem Determination: This problem should only occur on a table space with a 32KB page size. Analyze the requirement for maximum data length in VARCHAR and LONG VARCHAR columns to see whether a shorter length can be specified.

DSNU295I *csect-name* - IN UTILTERM PHASE OF REORG WITH SHRLEVEL REFERENCE OR CHANGE, DATA SET *name* COULD NOT BE DELETED, DFP REASON CODE = *rrrrrrrr*

Explanation: For the area (table space or partition) being reorganized, REORG with SHRLEVEL REFERENCE or CHANGE unloads data from the original data sets and reloads data into shadow data sets. REORG then exchanges the names of the original and shadow data sets. The original name of a data set is in the form "*catname.DSNDBx.dbname.pname.I0001.Annn*". The shadow name of a data set is in the form "*catname.DSNDBx.dbname.pname.J0001.Annn*". REORG uses such data sets for indexes as well as data.

If a data set is DB2-managed, the utilterm phase of REORG deletes the shadow data set, which was the original data set. This message indicates that the shadow data set *name* could not be deleted. *rrrrrrrr* indicates the DFP reason code.

Severity: 4 (warning)

System Action: REORG continues execution, but it does not delete the specified data set.

User Response: Try to delete the data set. If you cannot delete it, notify the system programmer.

System Programmer Response: Look up the DFP reason code, and try to determine why the data set could not be deleted.

DSNU296I *csect-name* - IN REORG WITH SHRLEVEL REFERENCE OR CHANGE, DATA SET *name* DOES NOT EXIST, CONTEXT=*c*

Explanation: For the area (table space or partition) being reorganized, REORG with SHRLEVEL REFERENCE or CHANGE unloads data from the original data sets and reloads data into shadow data sets. REORG then exchanges the names of the original and shadow data sets, using temporary names during the renaming. The original name of a data set is in the form "*catname.DSNDBx.dbname.pname.I0001.Annn*". The shadow name of a data set is in the form "*catname.DSNDBx.dbname.pname. J 0001.Annn*". The temporary name of a data set is in the form "*catname.DSNDBx.dbname.pname.T0001.Annn*".

REORG uses such data sets for indexes as well as data.

During its initialization, REORG cannot execute if:

- Data sets with the temporary names already exist
- DB2-managed data sets with the shadow names already exist
- User-managed data sets with the shadow names do not already exist

To exchange the names of the original and shadow data sets, REORG renames in the following ways:

- 1 In the switch phase, it renames the original data set from the original name to the temporary name.
- 2 In the switch phase, it renames the shadow data set from the shadow name to the original name.
- 3 In the utilterm phase, it renames the original data set from the temporary name to the shadow name (for user-managed data sets). It deletes the temporary name for DB2-managed data sets.

If either a -TERM UTILITY command is issued, or the REORG switch phase is restarted after REORG has begun renaming data sets, the names revert back to their original form prior to the utilterm phase of REORG:

The context code indicates the specific type of error:

- 1 During the switch phase of REORG, on rename 1, REORG detected that a data set with an original name does not exist. This error condition can arise for a DB2-managed or user-managed data set.

During the switch phase restart or a -TERM UTILITY during the switch phase, on rename 4, REORG detected that a data set with an original name does not exist. This error condition can arise for a DB2-managed or user-managed data set.
- 2 During the switch phase of REORG, on rename 2, REORG detected that a data set with a shadow name does not exist. This error condition can arise for a DB2-managed or user-managed data set.

During the switch phase restart or a -TERM UTILITY during the switch phase, on rename 5, REORG detected that a data set with a shadow name does not exist. This error condition can arise for a DB2-managed or user-managed data set.
- 3 During the utilterm phase of REORG, on

rename 3, REORG detected that a data set with a temporary name does not exist. This error condition can arise for a user-managed data set.

- 7 During initialization of REORG, REORG detected that the shadow data set did not exist. This error can only occur with a table space, index, or partition that is stored in user-managed data sets.

Severity: 4 (warning) or 8 (error)

System Action: For context codes 1 or 2, utility processing is abended. ABEND reason code 00E4031B is issued. The object is left in a recovery pending state.

For context code 3, the utility job step that caused the function to be requested continues with no renaming. The utility job is placed in the stopped state. The object is left in a recovery pending state, and a message will be issued.

For context code 7, REORG does not execute.

For context codes 1, 2, or 3, the following messages are issued:

- If the data set is part of a nonpartitioned table space, the object is the table space, and the message is DSNU562I.
- If the data set is part of a partition of a table space, the object is the partition, and the message is DSNU560I.
- If the data set is part of a nonpartitioned index, the object is the index, and the message is DSNU557I.
- If the data set is part of a partition of a partitioned index, the object is the partition of the index, and the message is DSNU559I.

User Response: For context codes 1 or 2, execute the RECOVER TABLESPACE or RECOVER or REBUILD utilities.

For context code 3, do nothing.

For context code 7, define all shadow objects prior to running REORG.

DSNU297I *csect-name* **COMPOSITE RECORD SIZE TOO LARGE FOR** *table-name*

Explanation: The size of the record that would be unloaded for REORG DISCARD or REORG UNLOAD EXTERNAL is greater than the largest allowed data set logical record length (32760 bytes).

Severity: 8 (error)

System Action: The utility will terminate with a return code of 8.

User Response: If you are attempting to discard records during REORG, you will have to use SQL to DELETE the records prior to the REORG. If you are attempting to unload records in an external format, you

must use an application instead. If you are using the SORTDATA option with REORG UNLOAD EXTERNAL or REORG DISCARD, try removing the SORTDATA keyword.

Problem Determination: This problem will most likely occur only on a table with BLOB, CLOB, or DBCLOB columns.

DSNU298I *csect-name* - **RESTART NOT ALLOWED IN** *phase-name* **PHASE OF REORG UTILITY WITH SHRLEVEL CHANGE**

Explanation: An attempt was made to restart the REORG utility with SHRLEVEL CHANGE in the *phase-name* phase. DB2 does not allow you to restart the REORG utility with SHRLEVEL CHANGE in that phase.

Severity: 8 (error)

System Action: Utility processing abends. Abend reason code 00E40018 or 00E40310 might be issued.

User Response: Issue the -TERM UTILITY command to terminate the utility job; then rerun the job without the RESTART parameter.

System Programmer Response: If necessary, take actions to prevent access to the table space or partition before terminating the utility.

DSNU299I *csect-name* **CHARACTER CONVERSION FROM CCSID** *from-ccsid* **TO CCSID** *to-ccsid* **FAILED WITH ERROR CODE** **'error-code'** **FOR** *object-type* *object-name-qualifier*.*object-name* *column* *column-name*.

Explanation: A conversion error occurred during the conversion of a string to a different coded character set. The error occurred during the processing of the utility statement.

The *from-ccsid* identifies the coded character set of the string to be converted.

The *to-ccsid* identifies the coded character set to which it must be converted.

The *error-code* indicates the type of error as defined as follows:

- 8 - Length exception (for example, expansion required for PC MIXED data exceeds the maximum length of the string).
- 12 - Invalid code point.
- 16 - Form exception (for example, invalid MIXED data).
- 20 - Translate procedure error (for example, an error during Unicode/390 stage 2 conversions or an exit set the length control field of the string to an invalid value).

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- 24 - the conversion services have not been setup correctly or the conversion is not supported.

The *object_type* gives the type of the failed object. It could be a USERID or a SQLID or a TABLE with the conversion error. This could be either the target or the source of the conversion.

The *object-name-qualifier.object-name* is applicable for object type TABLE only. If the failed object type is TABLE, then the object qualifier name will be the table creator id and the object name will be the table name.

The *column* is applicable only if the failed object is TABLE. 'COLUMN' will be given immediately before the column-name is given.

The *column-name* gives the column name of the failing object. This could be either the target or the source of the conversion.

Severity: 8 (error)

System Action: The utility job is terminated.

User Response: Refer to *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. The user may generate a dump by adding the DIAGNOSE ABEND statement in the utility job and re-running the utility. If the error can be fixed, correct the error and resubmit the utility, else issue the TERM utility command to terminate the utility.

DSNU300I *csect-name* (RE)LOAD PHASE
COMPLETE, ELAPSED TIME =
hh/mm/ss

Explanation: The reload phase of the REORG or LOAD utility has completed normally. The elapsed time for the execution was 'hh' hours, 'mm' minutes, and 'ss' seconds.

DSNU301I *csect-name* - KEYWORD 'SORTDATA'
SPECIFIED AND/OR KEYWORD
'NOSYSREC' WAS SPECIFIED BUT NO
CLUSTERINGINDEX EXISTS,
KEYWORD IS IGNORED

Explanation: The 'SORTDATA' keyword was specified or the 'NOSYSREC' keyword was specified for a REORG utility job, or implied by the use of SHRLEVEL CHANGE. But it was found that no clustering index existed for the table space being reorganized. The keyword is ignored and processing continues normally.

Severity: 0

System Action: Processing continues normally.

User Response: If a clustering index was expected to be found for the table space being reorganized, determine the reason the index could not be found.

Problem Determination: Probably a user error.

Determine if a cluster index should be defined on one of the tables in the table space being reorganized. If so, define the cluster index; otherwise, remove the 'SORTDATA' and/or 'NOSYSREC' keyword from the utility statement if necessary.

DSNU302I *csect-name* (RE)LOAD PHASE
STATISTICS - NUMBER OF INPUT
RECORDS PROCESSED = *nnnnnnnn*

Explanation: This message is issued at the normal completion of the RELOAD phase of the REORG utility and the LOAD phase of the LOAD utility.

It indicates the number of records processed from the input record data set (that is, the data set identified either by the JCL DD statement identified in the UNLDDN option for REORG or the INDDN option for LOAD).

Severity: 0 (informational)

System Action: The LOAD or REORG utility completes the phase in which the records are (re-)introduced into the DB2 database. This is also the last phase of the utility unless there are some indexes that need to be built and/or updated.

User Response: The user can verify that the number of records (re-)loaded is consistent with expectations. For example, in REORG it matches the total number of records unloaded. For LOAD, it matches the number of records submitted minus the number of records reported rejected.

DSNU303I *csect-name* (RE)LOAD PHASE
STATISTICS - NUMBER OF RECORDS=
nnnnnn FOR TABLE *table-name*
PART=*part-number*

Explanation: This message is issued at the normal completion of the RELOAD phase of the REORG utility and the LOAD phase of the LOAD utility.

It indicates the number of records loaded into PART 'part-number' of 'table-name' from the source record data set. This data set is identified by the JCL DD statement in the UNLDDN option for REORG, or the INDDN option for LOAD.

This message is repeated for each INTO TABLE PART clause in the LOAD utility statement or each TABLESPACE PART clause in the REORG utility statement.

Severity: 0 (informational)

System Action: The LOAD or RELOAD phase maintains a separate count for each table part. Rejected rows are not included in the count. Each count is reported as a separate message at the end of the LOAD or RELOAD phase.

The user can verify the number of records loaded or reloaded into the table part. In REORG, it should match

the number of records unloaded for that table part. In LOAD, it should match the number of records processed.

DSNU304I *csect-name* (RE)LOAD PHASE
STATISTICS - NUMBER OF RECORDS
= *nnnnn* FOR TABLE *table-name*

Explanation: This message is issued at the normal completion of the RELOAD phase of the REORG utility and the LOAD phase of the LOAD utility.

It indicates the number of records loaded into TABLE 'table-name' from the source record data set (that is, the data set identified by the JCL DD statement identified in the UNLDDN option for REORG, or the INDDN option for LOAD).

This message is repeated for each TABLE loaded by the current REORG or LOAD utility statement.

If the LOAD or REORG was restarted in a LOAD or RELOAD phase from the last commit point (i.e., the 'RESTART' parm was specified), 'nnnnn' indicates the number of records loaded after the restart.

Severity: 0 (informational)

System Action: The LOAD or RELOAD phase maintains a separate count for each table populated by this phase. Rejected rows are not included in the count. Each count is reported as a separate message at the end of the LOAD or RELOAD phase.

The user can verify that the number of records (re-)loaded into the table is consistent with expectations. For example, in REORG it matches the number of records unloaded for that table. For LOAD, it matches the number of records processed.

DSNU305I *csect-name* - TABLE=*table-name* HAS
AN INCOMPLETE TABLE DEFINITION

Explanation: Table 'table-name' does not have an index defined to enforce the uniqueness of its primary key or unique key.

Severity: 8 (error)

System Action: Processing stops. No table in the table space is loaded.

User Response: The user can resubmit the LOAD job after performing one of the following:

- Creating a unique index over the table's primary key
- Creating a unique index over the table's unique key(s)
- Dropping the definition of the table's primary key
- Dropping the definition of the table's unique key(s)

Problem Determination: Issue SQL SELECT against the catalog to determine which indexes and relations exist against 'table-name'. Determine whether uniqueness of the primary key or unique key has been

guaranteed through omission or through faulty definition of an index.

DSNU306I *csect-name* - UNABLE TO DRAIN
WRITERS FROM *object-type object-name*

Explanation: The utility was unable to drain the writers from an object because the resource was unavailable. The object is identified by type and name. Message DSNT500I tells why the resource was unavailable. If the QUIESCE utility issues this message, DSNT500I is not issued, but message DSNT501I might be issued.

Severity: 8 (error)

System Action: Utility processing terminates.

Problem Determination: Refer to message DSNT500I or DSNT501I.

DSNU307I *csect-name* PARENT TABLE
parent-table-name OF *table-name* IN
RELATIONSHIP *relationship-name* HAS
AN INCOMPLETE TABLE DEFINITION

Explanation: The 'table-name' identifies the target table of the job for the LOAD utility or the dependent table to be checked by the CHECK DATA utility. The 'parent-table-name' identifies the parent table of the target table for the LOAD utility or the dependent table for the CHECK DATA utility in RELATIONSHIP 'relationship-name'. The primary index of PARENT TABLE 'parent-table-name' has been dropped.

This message is repeated for each incompletely defined parent table in each relationship where the target table is a child.

Severity: 8 (error)

System Action: The LOAD and CHECK DATA utilities stop further processing. No data is loaded by the LOAD utility and no relationships are checked by the CHECK DATA utility.

User Response: Check the existence of the primary index and its parent tables identified by RELATIONSHIP 'relationship-name'.

Problem Determination: If the incompletely defined tables were targets of the LOAD job, message DSNU305I has been issued for each such table. Refer to the catalog to determine if any tables in the table space that were not targets of the LOAD job are incompletely defined.

DSNU308I *csect-name* INDEX KEY LIST RECORD
LENGTH EXCEEDS MAXIMUM KEY
BUFFER SIZE

Explanation: The length of the index key list that will be built in the Data Base Services address space while loading a data record may be larger than the maximum

key buffer size. The LOAD statement may be too complex.

Severity: 8 (error)

System Action: Utility processing is terminated.

User Response: Examine the preceding DSNU650I INTO TABLE statements. The key size and number of indexes affected by each INTO TABLE statement are accumulative. The combination of these elements may produce a list of index keys, including header bytes, that is too large to be contained within the maximum size buffer area during the load of each input data record. It may be necessary to reduce the number of INTO TABLE statements or to drop some of the indexes that are affected by the load.

DSNU309I *csect-name* **NOT ALL REQUIRED UNIQUE INDEXES HAVE BEEN DEFINED FOR TABLE** *table-name*

Explanation: The table 'table-name' was created with unique index requirements. Not all of these indexes have been defined.

Severity: 8

System Action: Processing stops. No table in the table space is loaded.

User Response: The user may resubmit the LOAD job after either:

- Creating all the required unique indexes, or
- Dropping the table and re-creating it without the unique index requirements.

Problem Determination: Determine which unique indexes need to be created. Determine if the uniqueness requirement for the table is valid.

DSNU310I *csect-name* **RECORD 'n' WILL BE DISCARDED DUE TO** *field-name* **CONVERSION ERROR FOR** *table-name*

Explanation: The load utility found the input data provided for a field to be incorrect. The corresponding input data set record 'n' will be placed in the DISCARDS data set.

If the NOSUBS keyword was specified, it is possible that the record was discarded because the input contained a code point that when translated from the source CCSID to the target CCSID resulted in a substitution character being placed in the target string.

Severity: 4 (warning)

System Action: The input data set record is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in

the DISCARDS data set. Correct the error in the discarded input data. Submit a RESUME(YES) LOAD invocation with the DISCARDS data set as the input data set. Refer to *DB2 Utility Guide and Reference* for a definition of LOAD input field column specifications.

DSNU311I *csect-name* **RECORD 'n' WILL BE DISCARDED DUE TO INVALID** *field-name* **COLUMN SPECIFICATION**

Explanation: The load utility calculated the location of an input data value using the field specifications supplied and VARCHAR length fields present within the input data set record. The calculated position for the field was determined to be incorrect.

Severity: 4 (warning)

System Action: The input data set record number is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set. Correct the error in the discarded input data, if one exists. Otherwise, correct the input field specification. Submit a RESUME(YES) LOAD invocation, which uses the DISCARDS data set and the verified LOAD utility statement and field specifications. Refer to *DB2 Utility Guide and Reference* for a definition of LOAD input field column specifications.

DSNU312I *csect-name* **RECORD 'n' WILL BE DISCARDED DUE TO ERROR =** *X'reason-code'* **FROM EXIT ROUTINE** *procedure-name* **FOR** *table-name*

Explanation: The exit routine provided by your installation blocked the load of record 'n' into the table indicated. The reason-code was set by the exit routine.

Severity: 4 (warning)

System Action: The input data set record number is noted and will be discarded in the DISCARD phase. error is placed in the DISCARDS data set. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set. Correct the error in the discarded input data, if one exists. Ensure that the exit routine provided is correct. Submit a RESUME(YES) LOAD invocation, which uses the DISCARDS data set and the verified LOAD utility statement and field specifications. Refer to *DB2 Utility Guide and Reference* for a definition of LOAD input field column specifications.

System Programmer Response: Verify that the validation routine is correct.

DSNU313I *csect-name* RECORD 'n' WILL BE DISCARDED DUE TO PART OR HIGH KEY VALUESPECIFICATION(S)

Explanation: The discarded record does not belong to any of the partitions being loaded. For a LARGE table space, this might be because the key is higher than the high key value specified for the last partition.

Severity: 4 (warning)

System Action: The input data set record number is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set. Correct the error in the discarded input data, if one exists. Submit a RESUME(YES) LOAD invocation with the DISCARDS data set as the input data set. Refer to Part 2 of *DB2 Utility Guide and Reference* for a definition of LOAD input field column specifications.

System Programmer Response: Verify that the validation routine is correct.

DSNU314I *csect-name* RECORD 'n' WILL BE DISCARDED DUE TO WHEN SPECIFICATION(S)

Explanation: The discarded record satisfies none of the WHEN selection expressions provided.

Severity: 4 (warning)

System Action: The input data set record is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set. Correct the error in the discarded input data, if one exists. Submit a RESUME(YES) LOAD invocation with the DISCARDS data set as the input data set. Refer to *DB2 Utility Guide and Reference* for a definition of LOAD input field column specifications. If FORMAT UNLOAD was specified on the load statement, the WHEN specifications are built internally. This ensures that the rows are loaded back into the same object from which they were unloaded. Refer to *DB2 Utility Guide and Reference* for a description of the FORMAT UNLOAD option of LOAD.

DSNU315I *csect-name* RECORD 'n' WILL BE DISCARDED DUE TO UNEXPECTED ERROR

Explanation: The LOAD of input data set record number 'n' was attempted but was not successful due to an unexpected error.

Severity: 8 (error)

System Action: If the error was caused because a resource was not available, a DSNT500I message will be issued.

The utility step will be abended with a system X'04E' and an abend reason code of '00E40318'. If a DSNT500I message is not issued, an SVC dump will be requested. A SYSABEND dump of batch storage is also requested.

User Response: If a DSNT500I message was issued, refer to the description under that message number. If the unavailable resource becomes available, the utility step is restartable.

If there is no DSNT500I message, the error is an unexpected internal error and you should consult your system programmer.

Operator Response: An operator with SYSOPR authority can issue a TERM UTIL to free any held resources if that is necessary.

System Programmer Response: Refer to *DB2 Command Reference* for information about the TERM UTIL command. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU316I *csect-name* - UNABLE TO DRAIN WRITERS FROM *object-type object-name* PART *part-num*

Explanation: The utility was unable to drain the class of writers from a partition of an object because the resource was unavailable. The partition is identified by object type (object-type), object name (object-name), and partition number (part-num). Message DSNT500I tells why the resource was unavailable.

Severity: 8 (error)

System Action: Utility processing terminates.

Problem Determination: Refer to message DSNT500I.

DSNU317I *csect-name* DISCARD LIMIT HAS BEEN REACHED

Explanation: The DISCARDS limit specified on the LOAD utility statement was reached.

Severity: 8 (error)

System Action: Processing abends to allow users to increase the discard limit and restart the utility.

User Response: Increase the discard limit and restart the utility. Otherwise -TERM the utility. Review the file of input records provided to LOAD and review table definitions to determine why the number of records discarded exceeds expectations.

Problem Determination: See user response.

DSNU318I *csect-name* **RECORD 'n' WILL BE DISCARDED DUE TO INVALID *field-name* COLUMN SPECIFICATION FOR *table-name***

Explanation: The load utility calculated the location of an input data value using the field specifications supplied and VARCHAR length fields present within the input data set record 'n'. The calculated position for the field was determined to be incorrect.

Severity: 4 (warning)

System Action: The input data set record number is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set. Correct the error in the discarded input data, if one exists. Otherwise, correct the input field specification. Submit a RESUME(YES) LOAD invocation, which uses the DISCARDS data set and the verified LOAD utility statement and field specifications. Refer to *DB2 Utility Guide and Reference* for a definition of LOAD input field column specifications.

DSNU319I *csect-name* **RESUME(YES) WAS SPECIFIED FOR EMPTY PARTITION *nn*. RESUME(NO) IS ASSUMED**

Explanation: This message is issued in response to a LOAD utility request containing a partition level RESUME(YES) option. The RESUME(YES) option implies that the specified partition 'nn' is populated, but in this case it was not. The message alerts the invoker to this fact, and continues as if RESUME(YES) was not specified.

Severity: 4 (warning)

System Action: The LOAD utility, in attempting to honor the RESUME(YES), found the partition was empty, ignored the option, and continued as if RESUME(NO) was specified.

User Response: The user is alerted to the fact that the requested partition was empty rather than populated as the RESUME LOAD option implied.

DSNU320I *csect-name* **RESUME(YES) WAS SPECIFIED FOR AN EMPTY TABLESPACE**

Explanation: RESUME(YES) was specified within the LOAD utility statement. However, the RESUME(YES) option implies that the specified table space is populated.

Severity: 4 (warning)

System Action: Processing continues. The LOAD utility, in attempting to honor the RESUME(YES), found

the table space empty, so ignored the option, and proceeded as if RESUME(NO) was specified. If this table is currently defined as COMPRESS YES, a dictionary is not built.

User Response: The user is alerted to the fact that the requested table space was empty rather than populated as the RESUME LOAD option implied. Use the RESUME(NO) option if you want a compression dictionary built.

DSNU321I *csect-name* **CHECK PENDING ON TABLESPACE *tablespace-name* PROHIBITS PROCESSING**

Explanation: The requested utility cannot be run against a tablespace or tablespace partition in a check pending state.

Severity: 8 (error)

System Action: Processing terminates after the check pending states of all target tablespaces or partitions of the utility are analyzed.

User Response: Remove the named tablespace or partition from its check pending state by using the CHECK DATA or REPAIR utility. If you want more information on the extent of questionable data in the table space, query the SYSTABLES and SYSTABLEPART catalog tables.

DSNU322I *csect-name* **DEFERRED STATUS OF TABLE SPACE *database-name.table-space-name* PROHIBITS PROCESSING**

Explanation: The requested utility cannot be run against a table space or table space partition in a deferred state.

Severity: 8 (error)

System Action: Processing terminates after the deferred state of all target table spaces or table space partitions of the utility are analyzed.

User Response: To remove the deferred state, use the RECOVER TABLESPACE, LOAD REPLACE utility, or -START DATABASE command with ACCESS(RW) or ACCESS(RO). If you want more information on the status of the table space, use the -DISPLAY DATABASE command.

DSNU323I *csect-name* **COLUMN *ccc* IS OMITTED**

Explanation: The column 'ccc' is a nonnullable column and is not being loaded. Field specifications must include all nonnullable columns. The identified column name was missing from the field specification.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Determine if the input data contains the nonnullable column as a field. If it does, change the field specification to include it. If the input data does not contain the nonnullable column as a field, determine which is in error, the input data or the column specification. Make the corresponding correction. Resubmit the job if that is still appropriate.

System Programmer Response: Corrective procedures may require that a table be dropped and created again. Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for a discussion of how this can be accomplished. Refer to *DB2 Utility Guide and Reference* for a discussion of field specification constraints with regard to nonnullable columns.

DSNU324I *csect-name* **DEFERRED STATUS OF INDEX SPACE** *creator-name.index-name* **PROHIBITS PROCESSING**

Explanation: The requested utility cannot be run against an index space or index space partition in a deferred state.

Severity: 8 (error)

System Action: Processing terminates after the deferred state of all target index spaces or index partitions of the utility are analyzed.

User Response: The deferred state can be removed through recovery or rebuild of the index space or the physical index partition. It can also be removed by the -START DATABASE command with ACCESS(RW) or ACCESS(RO). The RECOVER or REBUILD INDEX utility can be run at either the index space or index partition level. If more information on the status of the index space is required, use the -DISPLAY DATABASE command.

DSNU325I *csect-name* **- AN INVALID SQL/DS FORMAT RECORD WAS ENCOUNTERED**

Explanation: The LOAD utility detected an invalid SQL/DS format record type.

Severity: 8 (error)

System Action: Utility execution is terminated.

User Response: Correct the input data and resubmit the job. Data that has been transmitted from an SQL/DS unload disk data set in a VM/370 system may have extra block descriptors and record descriptors at the beginning of each record. Ensure that this situation does not exist.

Problem Determination: Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for additional information regarding loading data from SQL/DS and resubmitting a partially completed load step.

DSNU326I *csect-name* **- USER NOT AUTHORIZED FOR LOAD REPLACE ON TABLESPACE**

Explanation: The user attempted to use the REPLACE option of LOAD, and it will reset to empty all tables in the table space before loading data. This option requires load authorization on each table in the table space, but the user did not have authority for one or more tables. In addition, if a table in the table space has a security label column, the user must have the write-down privilege when write-down is in effect.

Severity: 12 (severe error)

System Action: When LOAD REPLACE validation encounters the first nonauthorized table in the table space, the job step is terminated.

User Response: Obtaining the LOAD on DATABASE privilege for the database will allow you to rev="tech" proceed using the REPLACE option. If a table in the table space has a security label column, ensure that the user has write-down privilege when write-down is in effect before using the REPLAC Eoption. The other alternative is to first delete all rows from the tables which are to be loaded, and then use the RESUME option instead of the REPLACE option.

DSNU327I *csect-name* **TABLE b IS NOT IN SAME TABLESPACE AS TABLE a**

Explanation: All tables that are the subject of a single LOAD utility statement must belong to the same table space.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Remove the INTO TABLE control statement that specifies TABLE 'b' from the current LOAD request. If the data is to be loaded into TABLE 'b', create another LOAD utility statement that contains the INTO TABLE control statement for TABLE 'b' and resubmit the job.

DSNU328I *csect-name* **CANNOT PROCESS THE NON-EMPTY PARTITION nn WITH RESUME(NO). PROCESSING TERMINATES**

Explanation: The partition level RESUME keyword either specified or defaulted to a value of NO, which requires the partition to be empty. However, the LOAD command named partition 'nn', which was not empty.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Determine why the assumption of an empty partition was wrong. This may require

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consultation with the system programmer. Either remove the current partition's rows using an SQL DELETE, or change the LOAD option to RESUME YES. Resubmit the job. Refer to *DB2 Utility Guide and Reference* for a description of the partition-level RESUME option of LOAD.

System Programmer Response: Determine whether the partition should be empty. If it should, use SQL DELETE to empty it. Otherwise, instruct the user to use the RESUME(YES) option for that partition.

DSNU329I *csect-name* - FIELD *field-name* IS NOT DEFAULTABLE

Explanation: You specified a NULLIF or DEFAULTIF field specification option for:

- A column defined to be not nullable or not defaultable
- A field with no column counterpart.

Severity: 8 (error)

System Action: The utility abends to allow restart.

User Response: Determine whether the field specification refers to the correct column. If it does, remove the NULLIF option from the field specification, and restart the job. Alternatively, TERM the utility. Refer to *DB2 Utility Guide and Reference* for LOAD NULLIF option constraints.

DSNU330I *csect-name* TABLESPACE IS NOT EMPTY

Explanation: The RESUME keyword either specified or defaulted to a value of 'NO', which requires an empty table space. However, the LOAD command named a table space that was not empty.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Determine why the assumption of an empty table space was wrong. This may require consultation with the system programmer. Either remove the current table(s) rows using an SQL DELETE, or change the LOAD option to RESUME YES. Resubmit the job. Refer to *DB2 Utility Guide and Reference* for a definition of the RESUME option of LOAD.

System Programmer Response: If the table space is used by more than one application, determine whether the table space should be empty. If it should be, use SQL DELETE to make it empty. Otherwise, instruct the user to use the RESUME(YES) option.

DSNU331I *csect-name* FIELD LISTS ARE NOT ALLOWED WITH FORMAT KEYWORD

Explanation: Field lists are not allowed with FORMAT UNLOAD or FORMAT SQL/DS keywords.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Determine whether the field specifications or the FORMAT option is correct. Eliminate whichever is incorrect, and resubmit the job. Refer to *DB2 Utility Guide and Reference* for a definition of the LOAD FORMAT option constraints.

DSNU332I *csect-name* - INPUT VALUE X'hex-data' OUT OF RANGE FOR COLUMN 'column-name'

Explanation: The LOAD utility detected a numeric value outside of the range of permissible values for the column in the DB2 table. A loss of significant digits results if the LOAD process continues. The input data type is SMALL INTEGER, INTEGER, DECIMAL, or FLOAT and is displayed in hexadecimal.

Severity: 8 (error)

System Action: Further utility processing is terminated unless DISCARD processing is active.

User Response: Correct the input data and resubmit the job. Make sure that the 'field specification' on the LOAD statement is consistent with the table definition and the input data. This might mean changing:

- The table definition
- The LOAD statement
- The input data.

Refer to *DB2 Utility Guide and Reference* to determine input constraints. Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for information on resubmitting a partially completed LOAD step.

DSNU333I *csect-name* - INPUT VALUE 'ebcdic-data' OUT OF RANGE FOR COLUMN 'column-name'

Explanation: The LOAD utility detected a numeric value outside the range of permissible values for the column in the DB2 table. A loss of significant digits results if the LOAD process continues. The input data type is INTEGER EXTERNAL, DECIMAL EXTERNAL, or FLOAT EXTERNAL.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Correct the input data and resubmit the job. Make sure that the 'field specification' on the LOAD statement is consistent with the table definition and the input data. This might mean changing:

- The table definition
- The LOAD statement
- The input data.

Refer to *DB2 Utility Guide and Reference* to determine input constraints. Refer to Part 2 (Volume 1) of *DB2*

Administration Guide for information on resubmitting a partially completed LOAD step.

DSNU334I *csect-name* INPUT FIELD *fffffff* INVALID FOR *ttttttt*, ERROR CODE *cc*

Explanation: The LOAD utility found the input data provided for field *fffffff* in table *ttttttt* to be incorrect. The error code *cc*, if present, identifies the problem. Possible error codes are:

- 01 Input numeric value is out of the range for the table column.
- 02 Input numeric field contains invalid numeric data.
- 03 There was an error converting input numeric data to floating-point data.
- 04 Input packed decimal data is in error.
- 05 Input is too long for a date column.
- 06 Input is too short for a date column.
- 07 Input is too long for a time column.
- 08 Input is too short for a time column.
- 09 Input is too long for a time stamp column.
- 10 Input is too short for a time stamp column.
- 11 Input character field is too long for the table column.
- 12 Input variable character field is too long for the table column.
- 13 Input is out of range for the date/time column.
- 14 Input is invalid for the date/time column.
- 15 Input length is incorrect for numeric column.
- 16 Input contains a blank character.
- 17 Input is too long for a graphic column.
- 18 Input is invalid for a graphic column.
- 19 Input is too long for the table column after a required CCSID conversion.
- 20 Input contained an invalid code point for a required CCSID conversion.
- 21 Input does not conform to the rules for valid data for a required CCSID conversion.
- 22 Input causes an error during CCSID conversion. An example of this type of error would be an error in a user exit routine.
- 23 Input is invalid for a *rowid* column.
- 24 Input contained a code point that when translated from the source CCSID to the target CCSID resulted in a substitution character being placed in the target string. This condition

can occur when the NOSUBS keyword was specified and no discard data set was specified.

- 25 The range of values for an identity column is exhausted.
- 26 A null value has been supplied for a not null column.
- 27 Input is invalid for a security label column.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Correct the input data and resubmit the job. Make sure that the 'field specification' on the LOAD statement is consistent with the table definition and the input data. This might mean changing:

- The table definition
- The LOAD statement
- The input data.

Refer to *DB2 Utility Guide and Reference* to determine input constraints. Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for information on resubmitting a partially completed LOAD step.

DSNU335I *csect-name* INPUT FIELD '*fffffff*' NOT ENTIRELY WITHIN INPUT RECORD

Explanation: The LOAD utility found that the input field '*fffffff*' extends beyond the end of the input record.

If DISCARDS processing is active, the message severity is 4 (warning).

Severity: 4 (warning) or 8 (error)

System Action: For fixed length records, with no VARCHARs included, the length needed by the LOAD utility can be calculated before processing. In this case, when the LOAD utility determines that no records can be loaded because ALL of the INTO TABLE statements require input longer than the defined lengths, the LOAD job terminates on the first record without discarding any records. Further utility processing with mixed or non-fixed length records is terminated unless DISCARDS processing is active.

User Response: Correct the input data and resubmit the job. Make sure that the 'field specification' on the LOAD statement is consistent with the table definition and the input data. This might mean changing:

- The table definition
- The LOAD statement
- The input data.

Refer to *DB2 Utility Guide and Reference* to determine input constraints. Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for information on resubmitting a partially completed LOAD step.

DSNU336I *csect-name* INVALID nullif
SPECIFICATION FOR INPUT FIELD
ffffff

Explanation: The LOAD utility found the 'nullif' field specification to be incorrect.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Correct the 'nullif' specification and resubmit the job. Refer to *DB2 Utility Guide and Reference* for a description of 'nullif' field selection options and Part 2 (Volume 1) of *DB2 Administration Guide* for information on resubmitting a partially completed LOAD step.

DSNU337I *csect-name* RECORD(n),
CONCATENATED CONTINUEIF
RECORD IS TOO LARGE

Explanation: The CONTINUEIF option was specified during LOAD to concatenate multiple physical records into one logical record for loading. The resultant concatenated record is too large to be processed. The maximum length allowed is 32767 bytes.

Severity: 8

System Action: When discard processing is specified, the input data set logical record is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set, and the severity level is 4. When discard process is not specified, the severity is 8 and the LOAD utility will terminate.

User Response: When discard processing is specified, following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set. Correct the error in the discarded input data, and submit a RESUME(YES) LOAD invocation with the DISCARDS data set as the input data set. When discard processing is not specified: correct the error in the input data set and rerun the job.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items: Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSNU338I *csect-name* INVALID COLUMN
SPECIFICATION FOR *column name*

Explanation: The LOAD utility found the dynamically determined column location for an input field to be incorrect.

Severity: 8 (error)

System Action: The utility abends to allow restart.

User Response: Correct the input field specification or the input data and restart the job. Alternatively, TERM the utility.

DSNU339I *csect-name* INVALID CONTINUEIF
SPECIFICATION

Explanation: The CONTINUEIF clause of a LOAD utility extends beyond the end of the input record.

Severity: 8 (error)

System Action: The LOAD utility is terminated.

User Response: Correct the CONTINUEIF clause. The column specification must be reduced and/or the value being compared must be shortened. The value being compared must be entirely within the input record.

DSNU340I *csect-name* - ERROR LOADING INDEX,
DUPLICATE KEY, INDEX=*index-name*,
TABLE=*table-name*, RID OF INDEXED
ROW=*rid-of-indexed-row*, RID OF
NON-INDEXED ROW=*rid-of-non-indexed-
row*

Explanation: A duplicate key was found while building the indicated index during the BUILD phase of the REORG or REBUILD INDEX utility. This violates the uniqueness rule for that index.

Severity: 8 (error)

System Action: All duplicate index entries of the indicated index are reported and the index is in RECOVERY PENDING status. Duplicate rows are present in the indexed table.

Utility processing continues with any other utility functions within the utility job step.

User Response: Duplicate rows are present in the indexed table. The system programmer should be informed, so that any applications that are dependent upon the uniqueness of the table rows are not initiated until corrective action has been taken.

Operator Response: Notify the system programmer.

System Programmer Response: Steps should be taken to inhibit any further processing until the index is repaired. If the nonunique keys are correct, DROP and recreate the index as nonunique. If the records with duplicate keys should not be in the table, use REPAIR DELETE to remove the erroneous rows. Use the RID values provided in this message as input to the REPAIR utility. After the duplicate data rows are removed or the unique index has been dropped, issue the -DISPLAY DATABASE command with RESTRICT against the target database. Use the REBUILD INDEX utility to recover any indexes that are in the REBUILD pending state. CHECK INDEX can be run to verify that the data and indexes are consistent.

Problem Determination: Use REPAIR LOCATE RID DUMP to view the records with duplicate keys. SQLSELECT may fail due to the inconsistent index. Use CHECK INDEX to check the validity of the index.

DSNU341I *csect-name* - **IMAGE COPY MUST BE TAKEN BEFORE REORG CAN BE RUN ON A DB2 CATALOG OR DIRECTORY TABLE SPACE**

Explanation: The DB2 catalog or directory table space being reorganized does not have an image copy that the RECOVER utility can use to recover the table space to currency. Before running the REORG utility, you must run the COPY utility to create an image copy. This prevents having to recover the DB2 catalog or directory table space to a prior point in time if a problem occurs during REORG processing.

Severity: 8

System Action: Processing terminates

User Response: Run the COPY utility to create an image copy of the DB2 catalog or directory table space. If more than one catalog or directory table space is to be reorganized, consider using the QUIESCE and COPY utilities for the set of table spaces to be reorganized.

Use the REPORT utility to view the recovery information related to the table space. The output from the REPORT utility should indicate either the absence of an image copy, or the presence of a REORG LOG NO SYSCOPY record.

DSNU342I *csect-name* **ERROR LOADING INDEX, ERROR = Xreason-code, INDEX = index-name**

Explanation: The LOAD, REORG or REBUILD INDEX utility encountered a processing error, which it could not correct, while extending the index identified by 'index-name'. Refer to Part 4, "Section 4. DB2 Codes," on page 773 for an explanation of the code given in 'reason-code'.

Severity: 8 (error)

System Action: The building of index entries for the indicated index is not completed. An SVC dump of the database services address space is requested for diagnostic purposes. The extension of other indexes associated with the tables being loaded is attempted. Any subsequent attempt to use the index directly or indirectly will cause the invoker to abend.

User Response: If the indexed table is used by more than one application, the system programmer should be informed so that applications that insert rows into, or delete rows from, the table or use the index directly are inhibited until corrective action is taken.

Normal corrective action would be to use the REBUILD INDEX utility option to reconstruct the index after the

processing problem identified by the reason code has been resolved. Alternatively, the index can be dropped and then created again, unless the index in question is the partitioning index.

Operator Response: The table space in question might need to be stopped and started for utility-only processing to inhibit attempted application use of the defective index.

System Programmer Response: If the index is used by more than one application, applications that either insert rows into, or delete rows from, the indexed table or use the index to access rows must be inhibited from executing. One way to accomplish this is to place the table space in question under utility only processing control via the -START and -STOP DATABASE commands until the REBUILD INDEX utility is executed.

Alternatively, the index can be dropped. Application execution can then proceed, and the index can be created again (unless the index was the partitioning index). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. Refer to Part 4, "Section 4. DB2 Codes," on page 773 to determine the processing error indicated by the reason code. For a discussion of how a table can be dropped and created again, or what to do if a partitioning index is damaged, refer to the discussion of LOAD processing in Part 2 (Volume 1) of *DB2 Administration Guide*.

DSNU343I *csect-name* - **BUILD PHASE STATISTICS. nnn DUPLICATE KEY ERRORS ENCOUNTERED**

Explanation: The count of duplicate key errors encountered during processing is 'nnn'.

Severity: 4 (warning) or 8 (error)

System Action: Processing continues. For the LOAD utility, the records causing the duplicate key errors will be deleted in a subsequent phase.

DSNU344I *csect-name* - **UNIQUE INDEX KEY DUPLICATES KEY OF INDEXED ROW AT RID rrrr INDEX = index-name TABLE = table-name RECNO = input-dataset-record-number RID = duprid**

Explanation: The input data set record indicated was loaded into table *table-name* at RID *duprid*, but it causes a unique index violation for index *index-name*. It duplicates the key value of a record already in the table at RID *rrrr*.

Severity: 4 (warning)

System Action: Processing continues. No index entry is created for the record at RID *duprid*. The record will be deleted in a subsequent phase of processing.

DSNU345I *csect-name* **UNIQUE INDEX KEY
DUPLICATES KEY FROM INPUT
DATASET RECORD *iiii* LOADED AT RID
rrrr INDEX = *index-name* TABLE =
table-name RECNO = *recno* RID = *duprid***

Explanation: Input data set record *recno* was loaded into table *table-name* at RID *duprid*, but it causes a unique index violation for index *index-name*. It duplicates the key value of another record in the load job: the record loaded at RID *rrrr* from input data set record *iiii*.

Severity: 4 (warning)

System Action: Processing continues. Index entries are not created for either record. Both records will be deleted in a subsequent phase of processing.

DSNU346I *csect-name* **RECORD(n),
CONCATENATED SQL/DS RECORD IS
TOO LARGE**

Explanation: A LOAD utility was executing with FORMAT SQL/DS input data. Multiple spanned segments of the input data were concatenated into one logical record for loading. The resultant concatenated record is too large to be processed. The maximum length allowed is 32764 bytes.

Severity: 4 or 8

System Action: When discard processing is specified, the input data set logical record is noted and is discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set and the severity is 4. When discard processing is not specified, the severity is 8 and the LOAD utility terminates.

User Response: When discard processing is specified, examine the records in the DISCARDS data set after the LOAD utility completes. Correct the error in the discarded input data. Then run the LOAD utility with the RESUME YES option using the DISCARDS data set as input. When discard processing is not specified, correct the error in the input data set and rerun the job.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSNU347I *csect-name* **DEADLINE =
*yyyy-mm-dd-hh.mm.ss.mmmmmm***

Explanation: This message applies only to REORG with SHRLEVEL REFERENCE or CHANGE. It supplements message DSNU105I, which can appear for any utility (including REORG).

This message is issued in response to a -DISPLAY UTILITY command.

It is also issued by the REORG utility if the user specified SHRLEVEL REFERENCE or CHANGE and DB2 estimates that the switch phase will not start by the deadline specified by the DEADLINE phrase.

This message indicates the most recently specified values of the DEADLINE parameter to REORG. For this parameter, a previous invocation of the -ALTER UTILITY command might have specified a value. If no previous invocation of -ALTER UTILITY has specified a value, then the most recently specified value is the value that was specified with the invocation of the REORG utility.

yyyy-mm-dd-hh.mm.ss.mmmmmm indicates a timestamp, according to the most recently specified value of DEADLINE.

Severity: 0 (informational)

System Action: The message reflects the state of DB2 at the time of the -DISPLAY UTILITY command or the time when DB2 *estimated* that the switch phase would not start by the deadline specified by the DEADLINE phrase.

If this message was issued for -DISPLAY UTILITY, the system continues processing. If an -ALTER UTILITY command is then executed, a subsequent -DISPLAY UTILITY command would reflect the results (if any) of the -ALTER UTILITY command.

DSNU348I *csect-name* **BUILD PHASE STATISTICS.
NUMBER OF KEYS = *nnnnnnnn* FOR
INDEX *index-name* PART *part-num***

Explanation: This message is issued by the BUILD phase of the REBUILD INDEX utility to report the total number of index key entries used to build the indicated index partition.

Severity: 0 (informational)

System Action: This message indicates the number of index key entries submitted to the DB2 data manager to build the indicated index partition. Both unique and nonunique key entries are counted. Rejected key entries are not counted.

User Response: The user can verify that the number reported is consistent with expectations.

DSNU349I *csect-name* **BUILD PHASE STATISTICS.
NUMBER OF KEYS = *nnnnnnnn* FOR
*index-name***

Explanation: This message is issued by the BUILD phase of the LOAD, REORG or REBUILD INDEX utility. The message is repeated for each index built by the LOAD, REORG or REBUILD INDEX utility. It indicates the total number of index key entries used to build the indicated index.

Severity: 0 (informational)

System Action: This message indicates the number of index key entries that were submitted to the DB2 data manager to build the indicated index. Both unique and nonunique key entries are counted. Rejected key entries are not counted.

User Response: The user can verify that the number reported is consistent with expectations. For example, the user can determine if it matches the number of records loaded for the table indexed by the indicated index.

DSNU350I *csect-name* - **EXISTING RECORDS DELETED FROM TABLESPACE**

Explanation: A LOAD utility execution, in which REPLACE was specified, has deleted all records from the specified table space.

Severity: 0 (informational)

System Action: Processing continues.

DSNU351I *csect-name* - '*reorg-option*' **OPTION IS NOT APPLICABLE FOR A DB2 CATALOG OR DIRECTORY OBJECT. THE OPTION IS IGNORED.**

Explanation: The identified option does not apply for this DB2 catalog or directory object. Table spaces and indexes within the DB2 catalog and directory may be processed differently than other table spaces and indexes. Consequently, these table spaces and indexes may not make use of reorg option *reorg-option*.

Severity: 4 (warning)

System Action: The option is ignored and processing continues.

User Response: None is required. However, you can remove the option from the utility input statement.

DSNU352I **EXISTING RECORDS DELETED FROM TABLESPACE PARTITION x**

Explanation: A LOAD utility execution, in which PART 'x' REPLACE was specified, has deleted all data records from partition 'x'. Index records over partition 'x' will be deleted in a subsequent phase of processing.

Severity: 0 (informational)

System Action: Processing continues.

DSNU353I *csect-name* **RECORD 'n' WILL BE DISCARDED DUE TO CHECK CONSTRAINT** *constraint-name* **VIOLATION ON TABLE** *table-name*

Explanation: The discarded record violates the check constraint named *constraint-name* defined on table *table-name*. The record is not loaded and is discarded

during the DISCARD phase.

Severity: 4 (warning)

System Action: The LOAD utility continues to process additional records in the input data set.

User Response: After the LOAD utility completes, examine the record in the DISCARDS data set. Correct the error in the discarded input data. Submit a RESUME(YES) LOAD job with the DISCARDS data set as the input data set.

DSNU354I *csect-name* **RECORD 'n' VIOLATES CHECK CONSTRAINT** *constraint-name* **ON TABLE** *table-name*

Explanation: The LOAD utility cannot load record *n* into table *table-name* because the check constraint *constraint-name* would be violated. The record is not loaded.

Severity: 8 (error)

System Action: Processing terminates. An abend is requested so that the LOAD can be restarted after the error condition is corrected.

User Response: Find the failing record in the input data set, correct the condition that caused the check constraint to be violated, and restart the LOAD utility. You can optionally include a SYSDISC DD statement in the JCL input to hold copies of records that are not loaded.

DSNU355I *csect-name* **INDEXVAL PHASE STATISTICS - nnn DUPLICATE KEY ERRORS CORRECTED BY DELETING** *rrr* **DATA ROWS**

Explanation: This message reports the results of the INDEXVAL phase of the LOAD utility. Data rows which were added during the LOAD or RELOAD phase of this LOAD utility invocation have been deleted because they caused unique index violations in the BUILD phase. A total of '*rrr*' data rows were deleted to correct '*nnn*' unique index violations.

Unique index violations are counted in one of two ways. An input data set record which has a value for a uniquely indexed column that duplicates a value that existed in the index prior to the LOAD job is counted as one duplicate key error. Two input data set records which have like values for a uniquely indexed column are counted as two unique index errors (that is, each of the two input data set records is in error).

Severity: 4 (warning)

System Action: Processing continues.

User Response: Compare the number of duplicate key errors corrected in the INDEXVAL phase to the number of duplicate key errors detected in the BUILD phase (reported by message DSNU343I). If the counts

are unequal, notify the system programmer.

If the counts are equal, following the LOAD utility execution, examine the discards file or the LOAD error summary to determine which input data set records caused the unique index violations. Revise the input records so they will not introduce duplicate values into unique indexes and reapply the input records to the table space. Alternatively, if appropriate, make the index nonunique and reapply the rejected records to the table space.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

DSNU356I *csect-name* INDEXVAL PHASE COMPLETE, ELAPSED TIME = hh/mm/ss

Explanation: The INDEXVAL phase of the LOAD utility has completed normally. The elapsed time for the execution was 'hh' hours, 'mm' minutes, and 'ss' seconds.

Severity: 0 (informational)

DSNU357I *csect-name* - 'LOG NO' OPTION REQUIRED FOR DB2 CATALOG AND DIRECTORY TABLE SPACES

Explanation: The LOG NO option must be specified when reorganizing a DB2 catalog or directory table space.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Add the LOG NO option to the utility input statement.

DSNU358I *csect-name* - 'UNLOAD ONLY' OPTION NOT VALID FOR DB2 CATALOG OR DIRECTORY TABLE SPACE

Explanation: The UNLOAD ONLY option is not permitted for DB2 catalog or directory table spaces.

Severity: 8

System Action: Processing terminates.

User Response: Determine the purpose for using the UNLOAD ONLY option. There might be alternative ways of accomplishing the required function (for example, the UNLOAD PAUSE option).

DSNU359I KEYWORD 'SORTKEYS' SPECIFIED BUT NO INDEX OR FOREIGN KEYS EXIST, KEYWORD IS IGNORED

Explanation: The 'SORTKEYS' keyword was specified for a LOAD or REORG utility job; however, it was found that no index and no foreign keys were defined for any of the tables being loaded or reorganized. The keyword is ignored and processing continues normally.

Severity: 0 (informational)

System Action: Processing continues normally.

User Response: If an index or foreign keys were expected to be found for the table or tables being loaded or reorganized, determine the reason the index or foreign keys could not be found.

Problem Determination: Probably a user error. Determine if an index should be defined on any of the tables in the table space, or if foreign keys should be defined. If so, define the index or foreign keys; otherwise, remove the 'SORTKEYS' keyword from the utility statement if necessary.

DSNU360I *csect-name* - IN REORG WITH SHRLEVEL REFERENCE OR CHANGE, DATA SET *name* EXISTS, CONTEXT=c

Explanation: For the area (table space or partition) being reorganized, REORG with SHRLEVEL REFERENCE or CHANGE unloads data from the original data sets and reloads data into shadow data sets. REORG then exchanges the names of the original and shadow data sets, using temporary names during the renaming. The original name of a data set is in the form "*catname.DSNDBx.dbname.psname.I0001.Annn*". The shadow name of a data set is in the form "*catname.DSNDBx.dbname.psname.J0001.Annn*". The temporary name of a data set is in the form "*catname.DSNDBx.dbname.psname.T0001.Annn*". REORG uses such data sets for indexes as well as data.

During its initialization, REORG cannot execute if:

- Data sets with the temporary names already exist.
- DB2-managed data sets with the shadow names already exist.
- User-managed data sets with the shadow names do **not** already exist.

To exchange the names of the original and shadow data sets, REORG performs the following renaming:

- 1 In the switch phase, it renames the original data set from the original name to the temporary name
- 2 In the switch phase, it renames the shadow data set from the shadow name to the original name
- 3 In the utilterm phase, it renames the original

data set from the temporary name to the shadow name (for user-managed data sets). It deletes the temporary for DB2-managed data sets.

If a -TERM UTILITY command is issued after any renaming, or a restart of the REORG switch phase occurs after any renaming, the data set names revert back to their original form prior to the renaming:

- 4 The original data set from the shadow name to the temporary name
- 5 The shadow data set from the original name to the shadow name
- 6 The original data set from the temporary name to the original name

The context code indicates the specific type of error:

- 1 During the switch phase of REORG, on rename 1, REORG detected that a data set with a temporary name already exists. This error condition can arise for a DB2-managed or user-managed data set.
- 2 During the switch phase of REORG, on rename 2, REORG detected that a data set with a original name already exists. This error condition can arise for a DB2-managed or user-managed data set.
- 3 During the utilterm phase of REORG, on rename 3, REORG detected that a data set with a shadow name already exists. This error condition can arise for a user-managed data set.
- 4 During switch phase restart or a -TERM UTILITY during the switch phase, on rename 4 (while reverting back to the original name), -TERM UTILITY detected that a data set with a temporary name already exists. This error condition can arise for a DB2-managed or user-managed data set.
- 5 During switch phase restart or a -TERM UTILITY during the switch phase, on rename 5 (while reverting back to the original name), -TERM UTILITY detected that a data set with a shadow name already exists. This error condition can arise for a DB2-managed or user-managed data set.
- 6 During switch phase restart or a -TERM UTILITY during the switch phase, on rename 6 (while reverting back to the original name), -TERM UTILITY detected that a data set with a original name already exists. This error condition can arise for a DB2-managed or user-managed data set.
- 8 During initialization of REORG, REORG detected that a data set with a temporary name

already exists. This error condition can arise for a DB2-managed or user-managed data set.

Severity: 8 (error)

System Action: For context code 1, or 2, the utility job step that caused the function to be requested abends with code 00E4031B. The utility job is placed in the stopped state.

For context code 3, the utility job step that caused the function to be requested continues without performing this renaming.

For context code 4, 5, or 6, the object is left in a recovery pending state, -TERM UTILITY continues to undo renaming, and a message is issued. The objects and messages are as follows:

- If the data set is part of a nonpartitioned table space, the object is the table space, and the message is DSNU562I.
- If the data set is part of a partition of a table space, the object is the partition, and the message is DSNU560I.
- If the data set is part of a nonpartitioned index, the object is the index, and the message is DSNU557I.
- If the data set is part of a partition of a partitioned index, the object is the partition of the index, and the message is DSNU559I.

For context code 8, REORG does not execute.

User Response: For context code 1 or 2, you can choose between these actions:

- Delete the data set; then RESTART the utility.
- TERM the utility. Delete the data set before trying to execute REORG again with SHRLEVEL REFERENCE or CHANGE.

For context code 3, if you want to perform the renaming, delete the data set with the shadow name and then perform the renaming.

For context code 4, 5, or 6, execute the RECOVER or REBUILD INDEX utility; then delete the shadow and temporary data sets (if they still exist).

For context code 8, delete the data set and then execute REORG.

DSNU361I *csect-name* FOREIGN KEY HAS NO PRIMARY KEY FOR RELATIONSHIP=*r1* INPUT RECORD NUMBER=*nnnn*, RID=*Xrrrr*

Explanation: Input record *nnnn* caused a row to be loaded into table *table* at RID *rrrr* with no primary key for the relationship with the name *r1*.

Severity: 4 (warning)

System Action: Processing continues.

User Response: None required. The constraint violation described will be rectified later in processing.

DSNU362I *csect-name* - IN REORG WITH SHRLEVEL CHANGE, LOG HAS BECOME SHORT, BUT MAXRO IS DEFER, MEMBER=*member-name*, UTILID=*utilid*

Explanation: In execution of the REORG utility with SHRLEVEL CHANGE, if the value of MAXRO is DEFER, and the actual time for an iteration and the estimated time for the next iteration are both less than 5 seconds, then DB2 adds a 5 second pause to the next iteration. This pause limits the utility's consumption of processor time.

Within an execution of REORG, the first time that this situation occurs, DB2 produces this message, which announces the pause. On all later occurrences of this situation, DB2 still adds the pause, but DB2 sends the message only if DB2 has *not* sent the message (for this execution of REORG) within the past 30 minutes. This is a WTO message; it is sent to the console, but it is not an action message. It is not sent to SYSPRINT.

In a data sharing environment, *member-name* identifies the DB2 member. In a non-data-sharing environment, *member-name* is blank. *utilid* identifies the utility job step.

Severity: 0 (informational)

System Action: REORG continues execution, with a 5 second pause. If the conditions in the explanation above continue to be true, DB2 will continue adding 5 second pauses.

User Response: If you have been planning to wait for an appropriate time to execute the -ALTER UTILITY command to choose the value of MAXRO and thus cause REORG to finish, now might be an appropriate time. However, you are not required to take any action.

Operator Response: If you have been planning to wait for an appropriate time to execute the -ALTER UTILITY command to increase the value of MAXRO and thus cause REORG to finish, now might be an appropriate time. However, you are not required to take any action.

DSNU363I *csect-name* - ENFORCE PHASE STATISTICS - RELATIONSHIP *r1* FOREIGN KEYS CHECKED=*n* CONSTRAINT VIOLATIONS ENCOUNTERED=*m*

Explanation: This message provides statistics for the enforce phase of the load utility. For relationship 'r1', the number of foreign keys checked is 'n'. The number of constraint violations found is 'm'.

Severity: 0 (informational)

System Action: Processing continues.

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DSNU364I *csect-name* PARTITIONS WILL BE LOADED IN PARALLEL, NUMBER OF TASKS = *nnnn*

Explanation: This message is issued by the RELOAD phase of the LOAD utility. The message indicates that the LOAD utility is able to load partitions in parallel. The number of utility tasks used to load partitions is indicated by *nnnn*.

Severity: 0

System Action: Processing of the RELOAD phase continues.

User Response: You can verify that the number of tasks reported is consistent with your expectations. For example, if 4 partitions are to be loaded, you might expect to see the number of tasks = 4.

DSNU365I *csect-name* - USER *auth-id* DOES NOT HAVE AUTHORITY ON REORG MAPPING TABLE

Explanation: The REORG utility was run with SHRLEVEL CHANGE and a mapping table, but user *auth-id* does not have authority to delete, insert, select, and update in the mapping table specified in the utility statement.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Obtain authorization to delete, insert, select, and update in the mapping table specified in the utility statement.

DSNU366I *csect-name* - REORG MAPPING TABLE HAS WRONG COLUMNS

Explanation: A mapping table was specified for a utility job executing REORG with SHRLEVEL CHANGE. However, the table has the wrong set of columns. This message can arise for any parameters of CREATE TABLE that are missing from, added to, or different from the CREATE TABLE statement that appears for the mapping table in the REORG section of *DB2 Utility Guide and Reference*.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Create a mapping table with the correct set of columns, and no other columns, as specified under REORG in *DB2 Utility Guide and Reference*. Execute REORG.

DSNU367I *csect-name* - ENFORCE PHASE
STATISTICS - *n* ROWS DELETED FROM
TABLE *t*

Explanation: This message reports the results of the ENFORCE phase of the LOAD utility. Data rows added during the RELOAD phase of the LOAD utility have been deleted because they contained foreign keys which did not have a corresponding primary key. A total of *n* data rows were deleted from table *t*.

Primary errors may cascade and remove additional records. The count is the sum of both primary and secondary constraint violations.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Determine why no primary key exists for the deleted record.

Problem Determination: All primary errors are accompanied by a DSNU361I message which identifies the relationship and input record which does not have a primary key value. The report phase will report all secondary errors and indicate the primary error record which caused this record to be deleted.

The relevant parent table can be found by querying the SYSIBM.SYSRELS catalog table. The relevant columns can be found by querying the SYSIBM.SYSFOREIGNKEYS catalog table.

DSNU368I *csect-name* - REORG MAPPING TABLE
HAS WRONG INDEX

Explanation: A mapping table was specified for a utility job executing REORG with SHRLEVEL CHANGE. However, the table has the wrong index. This message can arise for any parameters of CREATE INDEX that are missing from, added to, or different from the CREATE INDEX statement that appears for the mapping table in the REORG section of *DB2 Utility Guide and Reference*. It can also arise for the existence of any other indexes on the mapping table.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Create a mapping table with the correct index, and no other indexes, as specified under REORG in *DB2 Utility Guide and Reference*. Execute REORG.

DSNU369I *csect-name* - ENFORCE PHASE
COMPLETE, ELAPSED TIME =
hh/mm/ss

Explanation: The ENFORCE phase of the LOAD utility has completed normally. The elapsed time for the execution was 'hh' hours, 'mm' minutes, and 'ss' seconds.

Severity: 0 (informational)

DSNU370I *csect-name* - THE LOCAL FORMAT
OPTION HAS BEEN USED WITH A
DATE OR TIME AND NO LOCAL EXIT
HAS BEEN INSTALLED.

Explanation: The Installation Application Programming Defaults Panel indicated that an exit for date or time was supplied, but the exit supplied by DB2 was not replaced.

Severity: 8 (error)

System Action: The statement cannot be executed.

User Response: Contact the system programmer about installation of the date or time exit.

System Programmer Response: To replace the DB2-supplied exit routine, an SMP USERMOD must be applied. If an SMP USERMOD is undesirable, the replacement module may be linked into a user library either included in the MVS LINKLIST or concatenated to the STEPLIB in the started task JCL for *ssnm*DBM1 (*ssnm* is the subsystem name).

DSNU371I *csect-name* - REORG MAPPING
TABLE'S TABLE SPACE MUST BE
SEGMENTED

Explanation: REORG with SHRLEVEL CHANGE specified a mapping table for a table space that is not segmented. The table space that contains the mapping table must be segmented.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Specify a mapping table that is in a table space that is segmented.

DSNU372I *csect-name* - CANNOT REORGANIZE
REORG MAPPING TABLE'S TABLE
SPACE

Explanation: REORG with SHRLEVEL CHANGE specified a mapping table that resides in the table space that is being reorganized. The table space that contains the mapping table must not be the table space that is being reorganized.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Specify a mapping table that is not in the table space that is being reorganized.

DSNU373I *csect-name* - IN -ALTER UTILITY OR REORG WITH SHRLEVEL REFERENCE OR CHANGE, DEADLINE HAS ALREADY OCCURRED, CONTEXT=*c*

Explanation: If a deadline is specified in the -ALTER UTILITY command or the REORG utility with SHRLEVEL REFERENCE or CHANGE, the deadline cannot occur before the time of execution of the -ALTER UTILITY or REORG that specified the deadline. Context codes are:

- 1 The error occurred on -ALTER UTILITY.
- 2 The error occurred on REORG.

Severity: 8 (error)

System Action: -ALTER UTILITY or REORG does not execute.

User Response: Execute -ALTER UTILITY or REORG with no deadline or with a deadline that has not already occurred. If you want to terminate an execution of REORG, use the -TERM UTILITY command.

DSNU374I *csect-name* - REORG WITH SHRLEVEL REFERENCE or CHANGE HAS BEEN TERMINATED, REASON=*c*

Explanation: REORG with SHRLEVEL REFERENCE or CHANGE has been terminated.

- 1 REORG with SHRLEVEL CHANGE specified LONGLOG TERM, and at the end of an iteration of log processing, the number of log records that the next iteration would process is not sufficiently lower than the number that the previous iterations processed.
- 2 DB2 estimated that the switch phase of REORG with SHRLEVEL REFERENCE or CHANGE would not start by the deadline specified in the DEADLINE phrase.

Severity: 8 (error)

System Action: REORG terminates.

User Response: For reason code 1, attempt a new invocation of reorganization later, perhaps when you expect that the application workload is lower or the maximum desired amount of time for applications to have read-only access is longer.

For reason code 2 on SHRLEVEL CHANGE, attempt a new invocation of reorganization later, perhaps when you expect to have a longer time available, you expect that the application workload is lower, or you expect that the maximum desired amount of time for applications to have read-only access is longer. For reason code 2 on SHRLEVEL REFERENCE, attempt a new invocation of reorganization later, perhaps when you expect to have a longer time available.

DSNU375I *csect-name* DISCARD PHASE STATISTICS - *nnn* INPUT DATA SET RECORDS DISCARDED

Explanation: Input data set records were rejected by the LOAD utility for one or several reasons. The rejected records have been placed in a discards data set. The number of records rejected is '*nnn*'. Message DSNU399I summarizes the errors causing the records to be rejected.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Examine the LOAD error summary and decide which of the discarded records, if any, should be corrected and reapplied to the table space.

DSNU376I *csect-name* DISCARD PHASE COMPLETE, ELAPSED TIME = *hh/mm/ss*

Explanation: The DISCARD phase of the LOAD utility has completed normally. The elapsed time for the execution was '*hh*' hours, '*mm*' minutes, and '*ss*' seconds.

Severity: 0 (informational)

DSNU377I *csect-name* - IN REORG WITH SHRLEVEL CHANGE, THE LOG IS BECOMING LONG, MEMBER=*member-name*, UTILID=*utilid*

Explanation: During log processing for REORG with SHRLEVEL CHANGE, the number of log records that the next iteration will process is not sufficiently lower than the number that the previous iterations processed. This situation means that during reorganization, the log is not being read quickly enough to catch up to the application writing the log. This is a WTO message; it is sent to the console, but it is not an action message. It is also sent to SYSPRINT.

DB2 refrains from taking the action specified in the LONGLOG phrase if any one of the following events occurs for this execution of REORG before the delay expires:

- An -ALTER UTILITY command is issued.
- A -TERM UTILITY command is issued.
- DB2 estimates that the time to perform the next iteration will be less than or equal to the time specified in the MAXRO phrase.
- REORG terminates for any reason (including the deadline).

member-name

Identifies the DB2 member in a data sharing environment. Blank in a non-data-sharing environment.

utilid Identifies the utility job step.

Severity: 4 (warning)

System Action: After a delay (specified by the DELAY phrase of the REORG utility or the -ALTER UTILITY command), REORG performs the action specified by the LONGLOG phrase of the REORG utility or the -ALTER UTILITY command.

User Response: No action is required. However, if the action specified by the LONGLOG phrase is not desired, the operator (or a user-written program that is triggered by the message) can take an action. For a list of possible actions, see the description of LONGLOG in the REORG section of *DB2 Utility Guide and Reference*.

Operator Response: No action is required. However, if the action specified by the LONGLOG phrase is not desired, the operator (or a user-written program that is triggered by the message) can take an action. For a list of possible actions, see the description of LONGLOG in the REORG section of *DB2 Utility Guide and Reference*.

DSNU378I *csect-name* - REORG WITH SHRLEVEL NONE HAS INAPPROPRIATE NOSYSREC KEYWORD, REASON=*c*

Explanation: REORG with SHRLEVEL NONE allows the following combinations of the SORTDATA and NOSYSREC keywords:

- Neither keyword
- SORTDATA alone (without NOSYSREC)
- SORTDATA NOSYSREC

These combinations do not trigger this message. However, NOSYSREC alone (without SORTDATA) is inappropriate and triggers this message with a reason code of 1.

Also, for REORG with SHRLEVEL NONE, if you specify UNLOAD PAUSE, UNLOAD ONLY, or UNLOAD EXTERNAL, NOSYSREC is inappropriate and triggers this message with a reason code of 2. If the two conditions (omission of SORTDATA and inclusion of UNLOAD PAUSE, ONLY, or EXTERNAL) are both true, NOSYSREC triggers this message with a reason code of 2.

Severity: 8 (error)

System Action: REORG does not execute.

User Response: Specify an invocation of REORG with appropriate parameters. Specifically, for reason code 1, if you want to execute REORG with SHRLEVEL NONE, add SORTDATA and/or remove NOSYSREC. For reason code 2, if you want to execute REORG with SHRLEVEL NONE, remove NOSYSREC, UNLOAD PAUSE, UNLOAD ONLY, or UNLOAD EXTERNAL .

DSNU379I *csect-name* - ALTER UTILITY, UTILID = *utilid*: SWITCH PHASE IN REORG HAS ALREADY STARTED, NO ALTER IS PERFORMED

Explanation: The -ALTER UTILITY command was applied to a job that is executing REORG with SHRLEVEL REFERENCE or CHANGE. However, nothing was altered, because REORG had already started its switch phase.

Severity: 4 (warning)

System Action: ALTER UTILITY has no effect.

DSNU380I *csect-name* TABLESPACE *database.tablespace-name* PARTITION *part-num* IS IN COPY PENDING

Explanation: An image copy is required to establish a new base from which the table space partition can be recovered. Otherwise, the results of running the RECOVER utility on that table space partition are unpredictable.

If the RECOVER TABLESPACE utility with the keyword TOCOPY is being used, the START_RBA or START_LRSN value of the associated full image copy might be outside the available recovery information. To verify this, look at the REPORT utility output. The RECOVER TABLESPACE utility will process the TOCOPY keyword and put the recovering object in copy pending status.

Severity: 4 (warning)

User Response: Take an image copy of the associated table space partition. If the message was issued after the COPY utility failed, correct all specified errors for the associated table space before attempting another image copy of that table space.

DSNU381I *csect-name* TABLESPACE *database.tablespace-name* IS IN COPY PENDING

Explanation: This message is issued after:

- A LOAD or REORG utility with the LOG(NO) option left the associated table space in an unrecoverable state.
- An image copy failed because broken pages were detected or an image copy was terminated.
- A partial recovery finished successfully.
- A MODIFY RECOVERY left the associated table space in an unrecoverable state.

If the RECOVER TABLESPACE utility with keyword TOCOPY is being used, the START_RBA or START_LRSN value of the associated full image copy might be outside the available recovery information. To verify this, look at the REPORT utility output. The RECOVER TABLESPACE utility will

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process the TOCOPY keyword and put the recovering object in copy pending status.

An image copy is required to establish a new base from which the table space can be recovered. Otherwise, the results of running the RECOVER utility on that table space are unpredictable.

Severity: 4 (warning)

User Response: Take an image copy of the associated table space. If the message was issued after the COPY utility failed, correct all specified errors for the associated table space before attempting another image copy on that table space.

DSNU382I *csect-name* - REORG UTILITY, UTILID = *utilid* REQUESTED TO ALTER, PHASE = *utility-phase*

Explanation: This message is issued in response to an -ALTER UTILITY command. It acknowledges that the request for alteration was received and verified. At the time the -ALTER UTILITY request was received, REORG was in the utility job step identified by UTILID *utilid*.

Severity: 0 (informational)

System Action: DB2 has accepted the request to alter the indicated utility job step. The utility alters its parameter values.

User Response: This message is an acknowledgement that the request has been accepted and is in progress.

DSNU383I *csect-name* CURRENT ITERATION NUMBER = *nnnnnn* WRITE ACCESS ALLOWED IN CURRENT ITERATION = *www* ITERATION BEFORE PREVIOUS ITERATION: ELAPSED TIME = *ha:ma:sa* NUMBER OF LOG RECORDS PROCESSED = *nnnnna* PREVIOUS ITERATION: ELAPSED TIME = *hb:mb:sb* NUMBER OF LOG RECORDS PROCESSED = *nnnnnb* CURRENT ITERATION: ESTIMATED ELAPSED TIME = *hc:mc:sc* ACTUAL ELAPSED TIME SO FAR = *hd:md:sd* ACTUAL NUMBER OF LOG RECORDS BEING PROCESSED = *nnnnnd* CURRENT ESTIMATE FOR NEXT ITERATION: ELAPSED TIME = *he:me:se* NUMBER OF LOG RECORDS TO BE PROCESSED = *nnnnne*

Explanation: This message applies only during the LOG phase of REORG with SHRLEVEL CHANGE. It supplements message DSNU105I which can appear in any phase (including the LOG phase).

This message is issued in response to a -DISPLAY UTILITY command.

It is also issued by the REORG utility if the user specified SHRLEVEL REFERENCE or CHANGE and DB2 estimates that the switch phase will not start by the deadline specified by the DEADLINE phrase. This message provides the user with an estimate of how far the REORG utility has proceeded in the indicated utility job step.

nnnnnn The current iteration number

www 'YES' or 'NO' according to whether write access is allowed in the current iteration of log processing

For the iteration before the previous iteration:

ha:ma:sa
The elapsed time for the iteration

nnnnna The number of log records processed in the iteration.

These values are 00:00:00 and 0 if the current iteration number is 1 or 2.

For the previous iteration:

hb:mb:sb
The corresponding information.

nnnnnb The corresponding information.

These values are 00:00:00 and 0 if the current iteration number is 1.

For the current iteration:

hc:mc:sc
The estimated elapsed time

hd:md:sd
The elapsed time so far

nnnnnd The actual number of log records being processed

For the next iteration:

he:me:se
The currently estimated elapsed time

nnnnne The currently estimated number of log records to be processed

Severity: 0 (informational)

System Action: The message reflects the state of DB2 at the time of the -DISPLAY UTILITY command or the time when DB2 estimated that the switch phase would not start by the deadline specified by the DEADLINE phrase.

If this message was issued for -DISPLAY UTILITY, the system continues processing. A subsequent -DISPLAY UTILITY command reflects that processing.

DSNU384I *csect-name* - MAXRO = aaaaaaaaaa
 SECONDS LONGLOG = ////////////////////////////////////////////////////////////////// DELAY =
 bbbbbbbbbbb SECONDS

Explanation: This message applies only to REORG with SHRLEVEL CHANGE. It supplements message DSNU105I, which can appear for any utility (including REORG).

This message is issued in response to a -DISPLAY UTILITY command.

It is also issued by the REORG utility if the user specified SHRLEVEL CHANGE and DB2 estimates that the switch phase will not start by the deadline specified by the DEADLINE phrase.

This message indicates the most recently specified values of certain parameters to REORG. For each such parameter, a previous invocation of the -ALTER UTILITY command might have specified a value. If no previous invocation of -ALTER UTILITY has specified a value, the most recently specified value is the value that was specified with the invocation of the REORG utility.

aaaaaaaaaa

A number of seconds, according to the most recently specified value of MAXRO. A value of "DEFER" denotes that the log file will be deferred indefinitely.

////////// "CONTINUE," "TERM," or "DRAIN" according to the most recently specified value of LONGLOG

bbbbbbbbbb

A number of seconds, according to the most recently specified value of DELAY

Severity: 0 (informational)

System Action: The message reflects the state of DB2 at the time of the -DISPLAY UTILITY command or the time when DB2 estimated that the switch phase would not start by the deadline specified by the DEADLINE phrase.

If this message was issued for -DISPLAY UTILITY, the system continues processing. If an -ALTER UTILITY command is then executed, a subsequent -DISPLAY UTILITY command reflects the results (if any) of the -ALTER UTILITY command.

DSNU385I *csect-name* - LOG PHASE COMPLETE,
 ELAPSED TIME = hh/mm/ss

Explanation: This message is issued at the normal completion of the LOG phase of the REORG utility. The time that has elapsed between the beginning and the completion of this phase was:

hh hours
mm minutes
ss seconds

Severity: 0 (informational)

System Action: Processing continues to the next phase of the REORG utility.

DSNU386I *csect-name* - LOG PHASE STATISTICS.
 NUMBER OF ITERATIONS = //iiiiiii,
 NUMBER OF LOG RECORDS = rrrrrrrr

Explanation: This message is issued at the normal completion of the LOG phase of the REORG utility.

iiiiiii The number of iterations of log processing that were performed. This number includes one or more iterations during which applications have read/write access plus one final iteration during which applications have read-only access.

rrrrrrrr The number of log records that were read.

Application of some of these log records might be unnecessary. Therefore, the LOG phase might apply only a subset of these log records to the shadow copy of the table space or partition.

Severity: 0 (informational)

System Action: The LOG phase of the REORG utility is completed.

DSNU387I *csect-name* - SWITCH PHASE
 COMPLETE, ELAPSED TIME =
 hh/mm/ss

Explanation: This message is issued at the normal completion of the switch phase of the REORG utility. The time that has elapsed between the beginning and the completion of this phase was:

hh hours
mm minutes
ss seconds

Severity: 0 (informational)

System Action: Processing continues to the next phase of the REORG utility.

DSNU388I *csect-name* - BUILD2 PHASE
 COMPLETE, ELAPSED TIME =
 hh/mm/ss

Explanation: This message is issued at the normal completion of the BUILD2 phase of the REORG utility. The time that has elapsed between the beginning and the completion of this phase was:

hh hours
mm minutes
ss seconds

Severity: 0 (informational)

System Action: Processing continues to the next utility statement in the utility job step, if any.

DSNU389I *csect-name* - BUILD2 PHASE
STATISTICS. NUMBER OF
NONPARTITIONED INDEXES = *mmm*

Explanation: This message is issued at the normal completion of the BUILD2 phase of the REORG utility.

mmm The number of nonpartitioned indexes whose RIDs were corrected.

Severity: 0 (informational)

System Action: The BUILD2 phase of the REORG utility is completed.

DSNU390I *csect-name* INVALID CONVERSION FOR
FIELD *cccccccc*

Explanation: The input field type for column, 'cccccccc', is incompatible with its data type (as found in the catalog).

Severity: 8 (error)

System Action: Utility processing is terminated.

User Response: Correct the error, and resubmit the job. Refer to *DB2 Utility Guide and Reference* for compatible data types.

DSNU391I *csect-name* - SORTBLD PHASE
STATISTICS. NUMBER OF INDEXES =
mmm

Explanation: This message is issued at normal completion of the SORTBLD phase of the LOAD, REORG, or REBUILD INDEX utility. The number of indexes that were built is indicated as *mmm*.

Severity: 0 (informational)

System Action: The SORTBLD phase of either the LOAD, REORG, or REBUILD INDEX utility is completed.

DSNU392I *csect-name* - SORTBLD PHASE
COMPLETE, ELAPSED TIME =
hh:mm:ss

Explanation: This message is issued at the normal completion of the SORTBLD phase of the LOAD, REORG, and REBUILD INDEX utility. The time that has elapsed between the beginning of the phase and the completion of this phase was *hh* hours, *mm* minutes, and *ss* seconds.

Severity: 0 (informational)

System Action: Processing continues to the next phase of the LOAD, REORG, or REBUILD INDEX utility. If this is the last phase, processing continues to the next utility statement in the utility job step, if any.

DSNU393I *csect-name* SORTBLD PHASE
STATISTICS - NUMBER OF KEYS =
nnnnnnnn FOR INDEX *index-name* PART
part-num

Explanation: This message is issued by the SORTBLD phase of the LOAD, REORG, or REBUILD INDEX utility to report the total number of index key entries used to build the indicated index partition.

Severity: 0 (informational)

System Action: This message indicates the number of index key entries for the index partition being built. Both unique and nonunique key entries are counted. Rejected key entries are not counted.

User Response: You can verify that the number reported is consistent with expectations.

DSNU394I *csect-name* SORTBLD PHASE
STATISTICS. NUMBER OF KEYS =
nnnnnnnn FOR INDEX *index-name*

Explanation: This message is issued by the SORTBLD phase of the LOAD, REORG, or REBUILD INDEX utility. The message is repeated for each index built by the LOAD, REORG, or REBUILD INDEX utility. It indicates the total number of index key entries used to build the indicated index. If the index is a partitioning index, the total will equal the sum of the number of index key entries reported in prior DSNU393I messages.

Severity: 0 (informational)

System Action: This message indicates the number of index key entries for the index being built. Both unique and nonunique key entries are counted. Rejected key entries are not counted.

User Response: You can verify that the number reported is consistent with expectations. For example, you can determine if it matches the number of records loaded for the table indexed by the indicated index, which will have been reported in a DSNU303I message issued during the RELOAD phase.

DSNU395I *csect-name* INDEXES WILL BE BUILT IN
PARALLEL, NUMBER OF TASKS =
nnnn

Explanation: This message is issued by the RELOAD phase of the LOAD or REORG or UNLOAD phase of REBUILD INDEX utility. The message indicates that the LOAD, REORG, or REBUILD INDEX utility is able to build indexes in parallel. The number of utility tasks used to build the indexes is indicated by *nnnn*.

Severity: 0 (informational)

System Action: Processing of the RELOAD phase continues.

User Response: You can verify that the number of

tasks reported is consistent with expectations. For example, if 3 indexes are to be built, the user might expect to see number of tasks = 6.

DSNU396I *csect-name* **REPORT PHASE COMPLETE, ELAPSED TIME = hh/mm/ss**

Explanation: The REPORT phase of the LOAD utility has completed normally. The elapsed time for the execution was 'hh' hours, 'mm' minutes, and 'ss' seconds.

Severity: 0 (informational)

DSNU397I *csect-name* **NUMBER OF TASKS CONSTRAINED BY xxxxxxxx**

Explanation: This message indicates that while a utility is able to start subtasks to perform operations in parallel, the number of tasks it will use has been constrained by a lack of some resource. The constraining resource is specified by xxxxxxxx, which can have the following values and meanings:

VIRTUAL STORAGE

The utility could start additional tasks, but there is insufficient virtual storage in the address space in which the utility job is running to make it effective to do so.

VIRTUAL STORAGE BELOW

The utility could start additional tasks, but there is insufficient virtual storage below the line in the address space in which the utility job is running to make it effective to do so.

DD STATEMENTS

The utility could start additional tasks, but the user has specified DD statements for the data sets to be used by SORT for sort work data sets or for sort message data sets, and fewer sort work data set groups or sort message data sets have been specified than the maximum number of tasks the utility could otherwise start.

CONNECTIONS

The utility could start additional tasks, but there are not enough free threads available to DB2 to do so.

CPUS The utility could start additional tasks, but it would not be efficient to do so because it would overtax the available CPUs.

Severity: 0 (informational)

System Action: Processing of the phase continues.

User Response: No action is required. However, if you want to increase the number of tasks used by the utility in order to reduce the elapsed time of the utility job, then the possible actions to take depend on the value of xxxxxxxx in the message:

VIRTUAL STORAGE

Increase the amount of virtual storage available to the utility job by specifying a larger region size in the job JCL, altering the JES defaults for region size, or changing the system IEFUSI exit to allow a larger virtual region.

If the utility is using BSAM data sets for which the number of buffers have been specified (BUFNO specified in the DCB field of the DD statement for the data set), consider reducing the number of buffers.

VIRTUAL STORAGE BELOW

If possible, increase the amount of virtual storage below the line available to the utility job by specifying a larger region size in the job JCL or reducing the number of data sets allocated in the job step. It might not be possible to relieve this constraint.

DD STATEMENTS

Define additional groups of sort work data sets, or eliminate the SWnnWKmm DD statements and specify the SORTDEV keyword (and, optionally, the SORTNUM keyword) to allow SORT to use dynamic allocation of its work data sets.

If the limitation is due to sort message data sets rather than sort work data sets, define additional sort message DD statements or eliminate the UTPRInnn DD statements and allocate UTPRINT to SYSOUT so that the sort message data sets can be dynamically allocated.

CONNECTIONS

Increase the number of threads available to DB2, or submit the job during a period of reduced DB2 activity.

CPUS Submit the job to a member that has more processors.

DSNU398I *csect-name* **UNEXPECTED PROCESSING ERROR, REASON=X00E40318, ON TABLE tttttt**

Explanation: When attempting to load a record into table 'tttttt', an error was encountered. Refer to Part 4, "Section 4. DB2 Codes," on page 773 for an explanation of reason code '00E40318'.

Severity: 8 (error)

System Action: If the error was caused by a resource not being available, a DSNT500I message is issued.

The utility step is abended with a system X'04E' with an abend reason code of '00E40318'. If a DSNT500I message is not issued, an SVC dump is requested. A SYSABEND dump of batch storage is also requested.

The utility step is left in the stopped state.

User Response: If a DSNT500I message was issued, refer to its description under that message number in this manual. If the unavailable resource becomes available, the utility step is restartable.

If a DSNT500I message is not issued, the error is an internal error. Notify the system programmer.

Operator Response: An operator with SYSOPR authority can issue a TERM UTIL to free any held resources (this may not be necessary).

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU399I *csect-name* - **LOAD UTILITY ERROR SUMMARY REPORT**

Explanation: This message summarizes errors detected during the load job. Figure 1 shows the format of the report. It is issued only if unique index or referential constraint violations were detected. The report contains one line for each error. The errors are listed first by error severity and within that by *idsrn*.

ERROR SEVERITY	INPUT RECORD	Discard Heading	ERROR TYPE	TABLE NAME	FIELD/FANSET NAME	RELATED ERROR
sev	idsrn	ddsrn	type	name1	name2	idsrn2
.

Figure 1. LOAD Utility Error Summary Report

The *Discard Heading* is either DISCARD RECORD or blank, depending on whether discard processing is in effect.

The report fields have the following meanings:

sev The severity of the error reported on this line:

Severity	Type of Error	Explanation
1	Primary	Primary referential integrity errors and all nonreferential integrity errors.
2	Secondary	Secondary referential integrity errors (that is, errors that result from a primary referential integrity error in an ancestor).

idsrn The relative record number in the input data set of the record causing the error reported on this line.

ddsrn The relative record number in the input data set of the record causing the error reported on this line, if discard processing is in effect. Otherwise, *ddsrn* is blank.

type A description of the type of error reported on this line, as follows:

- Conversion
- Field specification
- Validation
- Part Specification
- Unexpected
- Column specification
- Referential integrity
- Check constraint
- Duplicate key.

name1 The name of the table for which the record causing the error was targeted, if this information is pertinent for the type of error reported on this line. Otherwise, *name1* is blank. This field has nonblank values for the following error types:

- Conversion
- Validation
- Column specification
- Referential integrity (primary).
- Check constraint

name2 The name of the field or fanset involved in the error reported on this line, if this information is pertinent for the type of error reported.

Otherwise, *name2* is blank. This field contains a field name for the following types of errors:

- Conversion
- Field specification
- Column specification.

For primary referential integrity errors, *name2* is a relationship name. For check constraint errors, *name2* is a check constraint name.

idsrn2 The input data set record number of a related error. For duplicate key errors, it gives the input data set record number of the record whose key is duplicated. For secondary referential integrity errors, it gives the input data set record number of the record whose primary referential integrity error cascaded to cause this secondary error. For other types of errors, this field is unused.

Severity: 4 (warning)

System Action: Processing continues.

DSNU400I *csect-name* **COPY PROCESSED FOR**
obj-type obj-qual.obj-name **NUMBER OF**
PAGES=nnnnnn **AVERAGE PERCENT**
FREE SPACE PER PAGE = ff.ff
PERCENT OF CHANGED PAGES =
pp.pp **ELAPSED TIME= hh/mm/ss**

Explanation: This is an informational message to report the copy statistics. This message is issued by the COPY utility, and it can also be issued from LOAD or REORG if a full image copy has been requested during a table space load or reorganization. The statistics

apply to pages included in the scope of the COPY request. This can either be a full table space, full index space (DSNUM(ALL)) or a partition (DSNUM(integer)). All the pages in the table space, index space, or partition can be copied (FULL(YES)), or only the changed pages can be copied (FULL(NO)). The message variables are:

ff.ff The average percentage of free space within the copied pages. This indicates the amount of change activity that can occur without significant impairment of reference performance.

nnnnnn The number of pages written out.

Image copies produced during LOAD or REORG will have more pages written than a full image copy produced by running the COPY utility on the same table space, because some pages will be written more than once.

pp.pp The percentage of changed pages. This indicates the amount of change activity that occurred since the last image copy or reorganization. The percentage of changed pages is obtained by dividing the number of changed pages by the number of pages in the object. Preformatted pages consisting of all zeros are included in the count of pages scanned. Since these preformatted pages are not copied to the output data set, the number of pages scanned is usually larger than the number of pages copied.

When this message is issued for image copies produced during LOAD or REORG, this percentage will always be reported as 100%, because the utility is resetting and reformatting the entire table space.

System Action: The COPY, LOAD or REORG utility continues processing this message is for information only. Message DSNU428I will be issued when the copy processing is complete.

User Response: Reported statistics could suggest that either a RUNSTATS or REORG utility should be run on the table space.

DSNU401I *csect-name* **CONCURRENT COPY COMPLETE, ELAPSED TIME= *hh:mm:ss***

Explanation: The DFSMS Concurrent Copy utility completed normally.

Severity: 0 (informational)

System Action: Processing continues to the next utility statement in the utility job step. If there are no more utility statements, the utility job step is normally terminated, and the resources are released to their prior availability state. The utility identifier (UTILID) of the utility job step becomes available for reuse.

User Response: No action is required.

DSNU402I *csect-name* **INCREMENTAL IMAGE COPY DISALLOWED FOR *obj-type* *obj-qual.obj-name* FULL IMAGE COPY WILL BE TAKEN**

Explanation: An incremental image copy for a table space or data set was requested. However, a full image copy is required. Possible reasons include:

- The request was for one of the DB2-maintained table spaces DSNDDB01.DBD01, DSNDDB06.SYSCOPY, or DSNDDB01.SYSUTILX.
- A LOAD or REORG utility was run on the table space or data set with no subsequent full image copy.
- No full image copy was found for the requested sites.
- Copy pending status was set for the requested table space or data set.
- The request was for an entire table space, but the most recent image copy for the table space is on the data set level.
- The previous image copy is a DFSMS concurrent copy.

The request for an incremental image copy is ignored, and a full image copy is taken.

Severity: 4 (warning)

System Action: The request to take an incremental image copy is treated as a request to take a full image copy.

User Response: The capacity of the target image copy data set might not be sufficient if its size was established assuming an incremental image copy. If this condition occurs, terminate and then resubmit the job step.

DSNU403I *csect-name* - **FULL AND INCREMENTAL COPIES OF THE SAME TABLESPACE ON THE SAME TAPE DISALLOWED DDNAME *ddname***

Explanation: The COPY utility has been invoked to take an incremental image copy of a TABLESPACE. The specified output data set is on a tape which contains another FULL or INCREMENTAL image copy of the same TABLESPACE. This is not allowed.

Severity: 8 (error)

System Action: The utility will terminate with a return code of 8, and will not take the image copy or update the SYSCOPY table.

User Response: Change the VOLSER for the image copy output data set or use the MODIFY RECOVERY utility to delete SYSIBM.SYSCOPY records which are no longer needed for the same TABLESPACE and tape volume.

Problem Determination: Use the SQL SELECT command to look at the SYSIBM.SYSCOPY table. If the

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conflicting image copy data sets on the output tape are no longer needed, use MODIFY RECOVERY to eliminate the related SYSIBM.SYSCOPY records. If the data sets are still needed, you must place the new image copy on a different tape or you must take a FULL image copy.

DSNU404I *csect-name* LOCAL SITE AND RECOVERY SITE INCREMENTAL IMAGE COPIES ARE NOT SYNCHRONIZED FOR *obj-type obj-qual.obj-name*

Explanation: No incremental image copy can be made if

1. The incremental image copy is requested only for a site other than the current site.
2. The incremental image copies are requested for both sites but the most recent full image copy was made only for the current site.
3. The incremental image copies are requested for both sites and the most recent full image copies were made for both sites, but between the most recent full image copy and current request, all incremental image copies were made for current site only.

Severity: 8(error)

System Action: The utility will terminate with a return code of 8, and will not take the image copy or update the SYSCOPY table.

User Response: Take another full image copy of the TABLESPACE for both LOCAL site and RECOVERY site or change the request to make incremental image copy only for current site.

DSNU406I FULL IMAGE COPY SHOULD BE TAKEN FOR BOTH LOCAL SITE AND RECOVERY SITE FOR *obj-type obj-qual.obj-name*

Explanation: The requested full image is for one site only but history shows that there were image copies taken for both local site and recovery site and the table space is in copy pending status, or point in time recover has been done on the table space, or the table space is in copy pending status and the requested full image copy is for a site other than the current site. Be aware of the following situations:

1. If the requested copy is made for current site, then the other site can only do point in time recovery.
2. If the requested copy is for the site other than the current site, then the TABLESPACE will be in the same state as before COPY has been made.

Severity: 4 (warning)

System Action: COPY, LOAD, or REORG utility will continue to process the image copy.

User Response: Take another full image copy of the TABLESPACE for both LOCAL site and RECOVERY site to guarantee the correct recovery on both sites or check DSNZPARM to ensure that the current site is the site at which the image copy is being taken.

DSNU407I *csect-name* - DATA SET ALREADY USED FOR PREVIOUS IMAGE COPY DDNAME *ddname*

Explanation: A COPY, LOAD, or REORG utility has been invoked to take an image copy to a data set which is a duplicate of one already recorded in SYSCOPY. If the specified data set is cataloged, a matching DSNAME exists. If the specified data set is not cataloged, a matching DSNAME, DSVOLSER, and FILESEQNO exists.

Severity: 8 (error)

System Action: The utility will terminate with a return code of 8, and will not take the image copy or update the SYSCOPY table.

User Response: Change the name of the data set or use MODIFY utility to delete the old SYSCOPY record containing the duplicate data set.

DSNU408I *csect-name* - dsn EXISTS WITH -VOLUME=*vol*, FILE SEQUENCE-NUMBER=*fseq*, RBA=*rba*|*lrsn*, DATE=*date*, TIME=*time*

Explanation: If this message is issued after DSNU403I, it provides information from the SYSCOPY catalog table about the previously created image copy of the table space. If this message is issued after DSNU407I, it provides information from the SYSCOPY table about the duplicate data set that was detected during image copy processing.

For copies to DASD or MSS, *fseq* is 0; for copies of cataloged data sets, *vol* is (CATG).

Severity: 8 (error)

System Action: The utility terminates with return code 8 and does not take the image copy or update the SYSCOPY table.

User Response: Use the information provided to change the name of the data set or to locate the duplicate SYSCOPY record for deletion with the MODIFY RECOVERY utility.

DSNU409I *csect-name* NO hardware-or-software SUPPORT FOR *obj-type obj-qual.obj-name*

Explanation: This message is issued by the COPY or RECOVER utility for one of the following reasons.

- The COPY utility was invoked to take a DFSMS concurrent copy of a table space or index space that

resides on a device with no hardware or software support for the DFSMSdss DUMP command with the CONCURRENT option.

- The RECOVER utility invoked the DFSMSdss RESTORE command without the supporting software.

Severity: 4 (for RECOVER) or 8 (for COPY)

System Action: The RECOVER utility falls back to the previous image copy data set and continues. The COPY utility job terminates.

User Response: If a list of objects is specified in the COPY job, remove the object that has no hardware or software support from the list. Resubmit the job or use the DB2 COPY utility instead of the DFSMS Concurrent Copy utility.

DSNU410I *csect-name obj-type obj-qual.obj-name*
CONTAINED NO CHANGED PAGES

Explanation: An incremental image copy (COPY option FULL(NO)), which copies only changed pages, was requested. However, no changed pages were found.

Severity: 4 (warning)

This message reflects a warning condition that did not prevent subsequent processing.

System Action: This message indicates normal completion of the image copy utility. Processing continues to the next utility statement in the utility job step, if any. If there are no more utility statements, the utility job step is normally terminated, and the resources are released to their prior availability state. The UTILID of the utility job step becomes available for reuse.

Because no output was produced, the SYSIBM.SYSCOPY catalog table remains unchanged.

The requester may want to determine why the apparent assumption that a change occurred was not true.

Operator Response: The target copy data set identified by the DD statement nominated by the COPY COPYDDN option was not required. It was not tracked in the DB2 catalog table SYSIBM.SYSCOPY. It need not be kept for subsequent re-call.

DSNU411I *csect-name* **UNABLE TO LOGICALLY COMPLETE** *obj-type obj-qual.obj-name*
RETURN CODE *return-code* **REASON CODE** *reason-code*

Explanation: The DFSMSdss DUMP command with the CONCURRENT option encountered an error during the initialization of the target object being copied. The return code and reason code are from the DFSMSdss DUMP command.

Severity: 8

System Action: The utility job terminates.

User Response: See the return code and reason code in *z/OS DFSMSdss Storage Administration Reference* to determine the problem. Resubmit the job after resolving the problem.

DSNU412I *csect-name* **UNABLE TO PHYSICALLY COMPLETE** *obj-type obj-qual.obj-name*
RETURN CODE *return-code*

Explanation: The DFSMSdss DUMP command with the CONCURRENT option encountered an error during the backup process. The return code is from the DFSMSdss DUMP command.

Severity: 8

System Action: The utility job terminates.

User Response: See the return code description in *z/OS DFSMSdss Storage Administration Reference* to determine the problem. Resubmit the job after resolving the problem, or use the DB2 Copy utility instead of the DFSMS Concurrent Copy utility for the failed object.

DSNU413I *csect-name* - **CONCURRENT COPY SUCCESSFUL FOR** *obj-type obj-qual.obj-name*

Explanation: The DFSMS Concurrent Copy utility completed normally for the named object. This message is repeated for every copied object in the list.

Severity: 0 (informational)

System Action: Processing continues to the next object in the list. If there are no more objects, the utility ends normally with message DSNU401I.

User Response: No action is required.

DSNU414I *csect-name* **UNABLE TO RETRIEVE RESTART/REDO LRSN** *obj-type obj-qual.obj-name*

Explanation: This message is issued by the DB2 COPY utility when an error is encountered during the retrieval of a log record sequence number (LRSN).

This error can occur in these situations:

- Another DB2 in a data sharing group terminated abnormally while trying to update the table space or index space.
- A failure occurred while trying to communicate with other DB2s in the data sharing group.

Severity: 8

System Action: The utility job terminates.

User Response: Issue a -DISPLAY DATABASE command with the USE option to determine if any other DB2 systems hold a retained lock on the table space or index space (status = RSTR). If so, you must restart that DB2 system before the COPY job can be successfully run.

DSNU415I *csect-name* **INVALID OUTPUT BLOCK SIZE SPECIFIED DDNAME *ddname***

Explanation: Valid block sizes for an image copy or mergecopy data set are multiples of 4KB and less than the device limitation.

Severity: 8 (error)

System Action: Utility processing is terminated.

User Response: Correct the JCL statement, or use the default. Resubmit the request in a new utility job step. Refer to *DB2 Utility Guide and Reference* for a discussion of image copy and work data set constraints.

DSNU416I *csect-name* **THE OUTPUT IMAGE COPY DATA SET CANNOT BE PARTITIONED. DDNAME *ddname***

Explanation: The use of partitioned image copy data sets is restricted. The COPY, MERGECOPY, LOAD, or REORG utility job that was submitted has a partitioned output image copy data set, specified by the COPYDDN *ddname* or RECOVERYDDN *ddname* parameter.

Severity: 8 (error)

System Action: Utility processing is terminated. The image copy will not be taken or the merge will not be done, and the SYSIBM.SYSCOPY table will not be updated.

User Response: Correct the utility job by specifying a nonpartitioned data set as the output image copy data set.

DSNU417I *csect-name* **THE NUMBER OF VOLUMES USED BY THE IMAGE COPY DATA SET *data-set-name* HAS REACHED THE LIMIT**

Explanation: The image copy data set reached the limit of 255 volumes and another volume is required.

Severity: 8 (error)

System Action: The utility job is terminated.

User Response: You might want to use the DSNUM option of the COPY utility to identify a partition or data set within the table space to be copied, or specify a partition number to be loaded or reorganized if the copy is being produced from a LOAD or REORG. Refer to *DB2 Utility Guide and Reference* for a description of the COPY utility and the DSNUM option, and descriptions of the LOAD and REORG utilities and the PART option.

DSNU418I *csect-name* **CANNOT TAKE IMAGE COPY AT DATASET LEVEL FOR NONPARTITIONED TABLESPACE *obj-qual.obj-name* IN COPY PENDING STATUS**

Explanation: An image copy at the data set level was requested. However, it is not allowed for one of the following reasons:

- The table space is in copy pending status.
- The table space is not suitable for image copy at the data set level.

A copy of the entire table space is required.

Severity: 8 (error)

System Action: The COPY utility completes unsuccessfully with return code 8.

System Programmer Response: You must take a full image copy of the entire table space by specifying the DSNUM ALL option with the COPY utility.

DSNU420I *csect-name* **INCORRECT SHARE LEVEL SPECIFIED FOR TABLE SPACE *database-name.tablespace-name* DSNUM *dsnum***

Explanation: When copying a table space that is not recoverable, the share level (SHRLEVEL) must be REFERENCE.

If the object is an entire table space, 'DSNUM *dsnum*' is not displayed.

Severity: 8 (error)

System Action: Utility processing is terminated.

User Response: Correct the SHRLEVEL to REFERENCE, and resubmit the COPY utility in a new utility job step. Refer to *DB2 Utility Guide and Reference* for a discussion of COPY utility constraints.

DSNU421I *csect-name* - **START OF DFSMS MESSAGES**

Explanation: This message indicates the beginning of the DFSMS messages; DSNU422I indicates the end.

System Action: No action is required, but subsequent DFSMS messages might require action. See the DFSMS documentation for further information.

DSNU422I *csect-name* - **END OF DFSMS MESSAGE**

Explanation: This message indicates the end of the DFSMS messages; DSNU421I indicates the beginning.

System Action: No action is required, but preceding DFSMS messages might require action. See the DFSMS documentation for further information.

DSNU423I *csect name* **CANNOT TAKE CONCURRENT COPY WITH SHRLEVEL CHANGE OPTION FOR** *obj-type obj-qual.obj-name* **WITH GREATER THAN 4KB PAGE SIZE**

Explanation: The DFSMS Concurrent Copy utility is serialized at the extent level. The greater than 4KB page size condition might span more than one extent. This might cause the output data set to contain inconsistent data.

Severity: 8 (error)

System Action: The COPY utility completes unsuccessfully with return code 8.

System Programmer Response: You must take a concurrent copy with the SHRLEVEL REFERENCE option or a DB2 image copy if you prefer the SHRLEVEL CHANGE option.

Convert the data set attribute Control Interval size of the associated tablespace from the 4K Control Interval into the one that matches the page size. DB2 Utilities REORG Tablespace, LOAD with REPLACE, and RECOVER can be used to convert the table space.

DSNU424I *csect-name* **INCOMPATIBLE MAINTENANCE DETECTED. REFERENCE APAR NUMBER** *apar* **DO THE FOLLOWING:**

Explanation: This message indicates that there is a maintenance incompatibility detected across restart. This message is followed by the actions the user should take to resolve the incompatibility.

apar The number of the APAR with closing text that describes the incompatibility.

System Action: Utility execution is abended.

User Response: Refer to the action text in the message.

System Programmer Response: Refer to the APAR closing text.

DSNU425I *csect-name obj-type obj-qual.obj-name* **DOES NOT HAVE THE COPY YES ATTRIBUTE**

Explanation: The utility cannot process the identified index or index space because it was not defined with the COPY YES attribute. Without the COPY YES attribute, the index cannot be specified as a target for the RECOVER, COPY, or REPORT utilities. If the index needs to be rebuilt from the data in the table space, use the REBUILD INDEX utility instead.

Severity: 4 (warning) or 8 (error)

System Action: The RECOVER utility terminates processing with a return code of 8. The COPY utility

skips this object but continues processing the other objects in the list. The final COPY utility return code will be 8. The REPORT utility issues this message with a return code of 4 and continues processing other objects (if any).

User Response: Determine whether the index should be altered to have the COPY YES attribute. If so, alter the index then rerun the utility job. Otherwise remove the index from the utility statement.

DSNU426I *csect-name* **CANNOT COPY ONE PIECE OF NON-PARTITIONING** *obj-type obj-qual.obj-name*

Explanation: The copy of a nonpartitioning index at the data set level is not allowed.

Severity: 8 (error)

System Action: The COPY utility skips this object but continues processing the other objects in the list. The final COPY utility return code will be 8.

User Response: Either remove the DSNUM option so that it defaults to DSNUM(ALL) or modify your DSNUM option to DSNUM(ALL).

DSNU427I *csect-name* **OBJECTS WILL BE PROCESSED IN PARALLEL, NUMBER OF OBJECTS =** *nnnn*

Explanation: This message is issued by COPY or RECOVER utilities. The message indicates that COPY or RECOVER is able to process the objects in the list in parallel. The number of objects used is indicated by *nnnn*.

Severity: 0 (informational)

System Action: Processing of the utility continues.

User Response: You can verify that the number of objects processed is consistent with expectations.

DSNU428I *csect-name* **DB2 IMAGE COPY SUCCESSFUL FOR** *obj-type obj-qual.obj-name*

Explanation: The image copy of the object processed by the COPY, LOAD, or REORG utility has completed successfully and the image copy data set information has been recorded in the SYSIBM.SYSCOPY catalog table.

System Action: The COPY utility continues its processing on the next object in the list. The LOAD and REORG utilities continue processing in the subsequent phases.

DSNU429I *csect-name* **RECOVERY OF** *objecttype*
database-name.tablespace-name **MUST**
BE EXECUTED AT THE PARTITION
LEVEL

Explanation: You must recover the partitioned object at the partition level. You may receive this message if you are using COPY with the CONCURRENT option. The use of online REORG (SHRLEVEL REFERENCE or CHANGE) with the FASTSWITCH YES option has created a mixture of 'I0001' and 'J0001' instance nodes (fifth qualifier) for the underlying LDS's for the partitions of this object.

Severity: 0 (informational)

System Action: Utility processing continues.

DSNU430I *csect-name* - **ERROR ALLOCATING**
TEMPORARY FILTER FOR *obj-type*
obj-qual.obj-name **DSN=name**
CODE=X'reason-code'

Explanation: SVC 99 returned an error during the dynamic allocation of a temporary filter data set. This message is followed by text that explains the reason-code that is shown.

The COPY utility was specified with the CONCURRENT option, and has detected that the number of data sets to be processed will exceed the DFSMSdss DUMP command limitation of 255. The utility will dynamically allocate a temporary filter data set for the object and generate a DFSMSdss DUMP command with the FILTER option.

Severity: 8 (error)

System Action: Utility processing halts for this object.

The utility job completes with a return code of 8.

If the utility job step includes an OPTIONS control statement with the EVENT(ITEMERROR,SKIP) option, the utility will process the next item in the list.

User Response: Correct the error that is preventing dynamic allocation, and resubmit the utility job. In some cases where dynamic allocation may not be possible, consider using the FILTERDDN option on the COPY utility statement.

DSNU431I *csect-name* - **ERROR ALLOCATING**
TEMPORARY FILTER FOR *obj-type*
obj-qual.obj-name **DSNUM=name**
CODE=X'reason-code'

Explanation: An error returned during the dynamic allocation of a temporary filter data set. This message is followed by text that explains *reason-code*.

The RECOVER utility was run with the CURRENTCOPYONLY option and has detected that the number of data sets to be processed exceeds the DFSMSdss RESTORE command limitation of 255. DB2

dynamically allocates a temporary filter data set for the object and generates a DFSMSdss RESTORE command with the FILTER option.

Severity: 8 (error)

System Action: If the utility job step includes an OPTIONS control statement with the EVENT(ITEMERROR,SKIP) option, the utility processes the next item in the list. Otherwise, utility processing stops with return code of 8.

User Response: Correct the error that prevents dynamic allocation and resubmit the utility job. If dynamic allocation is not possible, remove, where possible, the CURRENTCOPYONLY option on the RECOVER utility statement.

DSNU432I *csect-name* - **ERROR DURING DFSS**
RESTORE OBJECT FOR *obj-type*
obj-qual.obj-name. **THE OBJECT IS NOT**
RECOVERED

Explanation: The RECOVER utility received an error notification from DFSS on object *obj-qual.obj-name*. The object has not been restored, but recovery of the other objects continues.

Severity: 4 (warning)

System Action: RECOVER processes the other objects.

When RECOVER completes, it displays all objects for which CURRENTCOPYONLY was specified.

User Response: Remove the CURRENTCOPYONLY keyword from the utility control statements.

DSNU434I *csect-name* - **TEMPLATE**
TEMPLATE-NAME HAS THE STACK
YES OPTION, WHICH IS NOT
SUPPORTED FOR CONCURRENT
COPY.

Explanation: The COPY utility attempted to execute a concurrent copy, using a TEMPLATE statement that contains the STACK YES option.

Severity: 8 (error)

System Action: If the utility job step includes an OPTIONS control statement with the EVENT(ITEMERROR,SKIP) option, the utility processes the next item in the list. Otherwise, utility processing stops with return code of 8.

User Response: Remove the STACK YES option from the TEMPLATE Statement, then resubmit the COPY job. Use the FILTERDDN option on the COPY statement to dump multiple objects to a concurrent copy dump data set.

DSNU440I *csect-name* **IMAGE COPY INFORMATION**

Explanation: This message gives statistical information about the results of running the COPY utility. It applies to a table space, partition, or data set, and is based on the information in the space page map at the time the utility is executed. The output contains the following information:

DBNAME

The name of the database to which the table space belongs.

TSNAME

The table space specified in the utility statement.

DSNUM

The partition or data set number of the table space. The value is ALL if information is about the entire table space.

nnKB PAGES

The total number of *nn*KB pages in the partition, data set, or entire table space. This value includes preformatted pages that contain all zeroes.

EMPTY PAGES

The total number of empty pages in the data set of the segmented table space, or entire segmented table space. Empty pages can result from deletes, or are pages that are not yet formatted. They are not copied by the utility.

CHANGED PAGES

The number of pages in the partition, data set, or table space that were changed since the last time an image copy was created. If an incremental image copy is taken, this value is the number of pages that are copied.

PERCENT OF CHANGED PAGES

The percent of changed pages in the table space, data set, or partition specified.

ICTYPE

The type of image copy recommended for the partition, data set, or table space specified. ICTYPE is based on the comparison between the percent of changed pages and the change limit values. ICTYPE values:

- I** If the percent of changed pages is greater or equal to the low CHANGELIMIT value and less than the high CHANGELIMIT value. An incremental image copy is recommended, or COPY takes one if the REPORTONLY option is not specified.
- F** If the percent of changed pages is equal to or greater than the high

CHANGELIMIT value. A full image copy is recommended, and COPY takes one if the REPORTONLY option is not specified.

NONE If no pages were changed. An image copy is not recommended, and COPY does not take one.

blank For the partition or data set if DSNUM ALL is specified, or if CONCURRENT is specified and the percent of changed pages is less than the CHANGELIMIT value.

Severity: 0 (informational)

System Action: Utility processing continues

User Response: If the message indicates, "INFORMATION CANNOT BE DETERMINED" for a table space, partition, or data set, examine the utility output for the DSNU441I message which lists the page numbers of the broken pages. See message DSNU441I for further instructions on repairing pages.

DSNU441I *csect-name* **BROKEN PAGE FOUND**
DBNAME = dbname TSNAME = tsname
DSNUM = dsnum PAGE = page

Explanation: The COPY utility found a broken space map page.

dbname

The name of the database to which the table space belongs.

tsname

The table space containing the broken page.

dsnum

The partition or data set number of the table space containing the broken page.

page

The hexadecimal page number of the broken page.

Severity: 8 (error)

System Action: Utility execution continues.

User Response: The data sets identified are in an indeterminate state. Use RECOVER, RECOVER PAGE, or the REPAIR utility to correct the broken page. Refer to Part 2 of *DB2 Diagnosis Guide and Reference*.

DSNU442I *csect-name* **CHANGELIMIT REPORT INFORMATION UNAVAILABLE FOR**
obj-type obj-qual.obj-name **WITH TRACKMOD NO**

Explanation: This message is issued in response to a COPY utility. The CHANGELIMIT option cannot produce statistical information for a table space or a partition that is defined with TRACKMOD NO, or before a copy has been taken after the TRACKMOD attribute has been changed from NO to YES.

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Severity: 4 (informational)

System Action: If REPORTONLY is not specified then a full image copy will be taken.

User Response: To obtain complete statistical information run CHANGELIMIT REPORTONLY after a copy has been taken.

DSNU443I csect-name type CHANGE LIMIT MET FOR *obj-type obj-qual.obj-name*

Explanation: The COPY utility is indicating whether the percent of changed pages in the specified table space, partition, or data set meets the CHANGELIMIT values. *type* values:

NO If no CHANGELIMIT met.

INCREMENTAL

If the percent of changed pages is greater than the low CHANGELIMIT value and less than the high CHANGELIMIT value.

FULL If the percent of changed pages is greater than or equal to the the high CHANGELIMIT value.

Severity: The return codes are:

1 (informational)

If no CHANGELIMIT was met.

2 (informational)

If the percent of changed pages is greater than the low CHANGELIMIT and less than the high CHANGELIMIT value.

3 (informational)

If the percent of changed pages is greater than or equal to the high CHANGELIMIT value.

System Action: Utility processing continues.

User Response: If the REPORTONLY option is specified and the result of this job step is not used to conditionally execute other job steps, examine the utility messages for this table space, partition, or data set to determine if it has changed to such a degree that an image copy or other step should be performed.

DSNU445I csect-name *ictype* IMAGE COPY WILL BE TAKEN FOR *obj-type obj-qual.obj-name*

Explanation: The COPY utility is indicating whether the percent of changed pages in the table space meets the change limit value, and whether an image copy will be taken. *ictype* values:

NO If no CHANGELIMIT value met.

INCREMENTAL

If the percent of changed pages is greater than the low CHANGELIMIT value and less than the high CHANGELIMIT value.

FULL If the percent of changed pages is greater than or equal to the high CHANGELIMIT value.

Severity: 0 (informational)

System Action: Utility processing continues. An image copy is taken if a change limit is met. If the low CHANGELIMIT value is met, then an incremental copy is taken. If the high CHANGELIMIT value is met, then a full image copy is taken.

DSNU446I csect-name - CHANGELIMIT REPORT INFORMATION UNAVAILABLE FOR *obj-type obj-qual.obj-name*, A FULL IMAGE COPY MUST BE TAKEN

Explanation: The changelimit dataset statistical information was requested, but is unavailable. A full image copy is required. Possible reasons are as follows:

- The request was for one of the DB2-maintained table spaces: DSNDB01.DBD01, DSNDB06.SYSCOPY, or DSNDB01.SYSUTILX.
- A LOAD or REORG utility was run on the table space or data set with no subsequent full image copy.
- No full image copy was found for the requested sites.
- Copy pending status was set for the requested table space or data set.
- The request was for an entire table space, but the most recent image copy for the table space is on the data set level.
- The previous image copy is a DFSMS concurrent copy.

The statistical information report will not be generated. If REPORTONLY was omitted, then a FULL image copy is taken.

Severity: 4 (warning)

System Action: The request for CHANGELIMIT without REPORTONLY is treated as a request to take a full image copy. The request for CHANGELIMIT with REPORTONLY will not generate the report.

User Response: If REPORTONLY is specified, then submit a job to take a full image copy.

DSNU454I csect-name COPY MERGE COMPLETE. NUMBER OF COPIES = *iiii*, NUMBER OF COPIES MERGED = *cccccc*, TOTAL NUMBER OF PAGES MERGED = *ttttt*, ELAPSED TIME = *hh/mm/ss*

Explanation: This message marks the normal completion of the MERGECOPY utility. The variables are:

iiii The number of copies found.

cccccc The number of image copies that were merged. The number merged can be less than

the number found if a work data set was not specified using the MERGECOPY WORKDDN option.

ttttt The total number of pages that were merged.

The merged incremental copies were consolidated either into a single new incremental image copy or into a new full image copy, depending upon the MERGECOPY NEWCOPY option. The DB2 catalog table SYSIBM.SYSCOPY was updated to reflect the results.

This message may indicate that prior data set entries were deleted and, consequently, that backup data set resources were freed.

Severity: 0/4 (informational/warning)

System Action: Processing continues to the next utility statement in the utility job step, if any. If there are no more utility statements, the utility job step is normally terminated, and the resources are released to their prior availability state. The UTILID of the utility job step becomes available for reuse.

User Response: You can review the reported statistics to assess the effectiveness of performing incremental image copies. You can examine the SYSIBM.SYSCOPY catalog table to review the incremental and full image copies that are subject to DB2 recovery.

The full or incremental image copy data set identified by the DD statement specified in the COPYDDN option was recorded in SYSIBM.SYSCOPY. DB2 assumes that the image copy data set is now available for subsequent recovery. Ensure that the data set is available for recovery.

DSNU458I *csect-name* **NO IMAGE COPIES TO MERGE**

Explanation: This message is issued in response to a MERGECOPY request. The MERGECOPY utility was invoked to merge existing incremental image copies. However, in checking the DB2 catalog table SYSIBM.SYSCOPY, no incremental image copies were found.

Severity: 4 (warning)

A severity 4 condition is given to alert the invoker that processing did not proceed as defined. However, processing is proceeding; nothing was encountered that would invalidate further processing.

System Action: This message indicates the completion of the MERGECOPY utility. Processing continues to the next utility statement in the utility job step, if any. If there are no more utility statements, the utility job step is normally terminated, and the resources that were held become available for REFERENCE

processing. The UTILID of the utility job step becomes available for reuse.

The requester may want to determine why the assumption that incremental copies existed was not true.

Operator Response: The target copy data set identified by the DD statement nominated by the MERGECOPY COPYDDN option was not required. It was not tracked in the DB2 catalog table SYSIBM.SYSCOPY. It need not be kept for subsequent re-call.

DSNU459I **SYSCOPY P RECORD ENCOUNTERED FOR** *obj-type obj-qual.obj-name*, **PIT RBA = xxxxxx**

Explanation: The utility encountered a SYSCOPY P record which requires that the SYSCOPY record at the given RBA or LRSN be used. The utility properly traverses the SYSCOPY records following this SYSCOPY P record.

Severity: 0 (informational)

User Response: For further information on how the SYSCOPY records are traversed, see Part 4 (Volume 1) of *DB2 Administration Guide*.

DSNU460I *csect-name* **IMAGE COPIES INCONSISTENT. MERGECOPY REQUEST REJECTED**

Explanation: MERGECOPY was requested for an entire table space. However, the most recent image copy for the associated table space was on the data set level. In addition, if the associated table space was partitioned, this might indicate that any or all of its partitions were being reorganized or loaded without logging after the MERGECOPY starting point. The MERGECOPY starting point is the most recent full image copy for the entire table space.

Severity: 4 (warning)

A severity 4 condition is given to alert the user that processing did not proceed as defined. However, processing is proceeding; nothing was encountered that would invalidate further processing.

System Action: This message indicates the completion of the MERGECOPY utility. Processing continues to the next utility statement in the utility job step, if any. If there are no more utility statements, the utility job step is normally terminated, and the resources that were held become available for REFERENCE processing. The UTILID of the utility job step becomes available for reuse.

No output was produced and the SYSIBM.SYSCOPY catalog table remains unchanged.

User Response: A full image copy of the associated table space should be taken. However, if it is preferred

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that a recovery be done on the data set level, a MERGECOPY job should be submitted by specifying 'DSNUM(data set number)' for each data set for which MERGECOPY is required.

DSNU461I *csect-name* PRIMARY FULL COPY DATA SET NOT FOUND, BACKUP WILL BE USED INSTEAD

Explanation: The primary full image copy cannot be found. The backup full image copy will be located and used for the merge process.

Severity: 0 (informational)

User Response: If the MERGECOPY utility can use the backup full image copy, the utility continues to process. If no backup full image copy can be used, the utility terminates.

DSNU462I *csect-name* MERGECOPY DISALLOWED FOR REQUESTED TABLE SPACE

Explanation: MERGECOPY was requested for table space DSNDB01.DB01, DSNDB01.SYSUTIL, or DSNDB06.SYSCOPY. MERGECOPY is not permitted for one of the following reasons:

- Only full image copies are allowed on these DB2-maintained tables.
- There is no record of the full image copies in the SYSIBM.SYSCOPY catalog; the copy information is in the DB2 log.

Severity: 8 (error)

System Action: Further utility processing is terminated.

System Programmer Response: Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for more information about MERGECOPY utility constraints.

DSNU463I *csect - THE xxxxxxxx* IMAGE COPY DATA SET *data-set-name* WITH DATE=*dddddd* AND TIME=*ttttt*, IS PARTICIPATING IN MERGECOPY.

Explanation: This informational message indicates the image copy that is used in the merge process. The variables have the following meanings:

xxxxxxx

PRIMARY or BACKUP, indicating a primary or backup image copy

data-set-name

The image copy data set name

dddddd

The image copy date

ttttt

The image copy time

Severity: 0 (informational)

User Response: The utility continues to process normally.

DSNU464I THIS IS A *sitetype*; *outputtype* WITH NEWCOPY NO IS NOT ALLOWED.

Explanation: The 'NEWCOPY NO' option to create incremental image copies is not supported for the current site. This error can be caused by:

- Running the MERGECOPY utility at *sitetype* LOCALSITE, but selecting the RECOVERYDDN with the 'NEWCOPY NO' option.
- Running the MERGECOPY utility at *sitetype* RECOVERYSITE, but selecting the COPYDDN with the 'NEWCOPY NO' option.

Severity: 8 (error)

System Action: The command cannot be executed.

User Response: Correct the error and resubmit the job. Refer to *DB2 Utility Guide and Reference* for detailed information.

DSNU470I TABLESPACE DSNDB01.SYSUTILX, ITS TABLES AND INDEXES CANNOT BE INCLUDED IN A LIST OF OBJECTS.

Explanation: This message is issued by the running utility when a control statement contains a list of objects, or references a LISTDEF, which includes any of the following SYSUTILX related objects: TABLESPACE DSNDB01.SYSUTILX, INDEXSPACE DSNDB01.DSNLUX01, INDEXSPACE DSNDB01.DSNLUX02, TABLE SYSADM.SYSUTIL, TABLE SYSADM.SYSUTILX, INDEX SYSADM.DSNLUX01 or INDEX SYSADM.DSNLUX02.

Severity: 8(error)

System Action: The utility job terminates.

User Response: Remove the invalid object from the control statement and run the utility against DSNDB01.SYSUTILX, its tables and indexes separately.

DSNU471I *csect-name - COPY PENDING ON* TABLESPACE *dbname.tablespace* PROHIBITS PROCESSING

Explanation: An attempt was made to execute a utility against a table space. Either the table space was in copy pending state or DSNDB06.SYSCOPY was in copy pending state.

Severity: 8 (error)

System Action: Utility processing is terminated.

User Response: Remove the table space from the copy pending state and resubmit the job.

Problem Determination: Refer to Part 4 (Volume 1) of

DB2 Administration Guide for a discussion of the database recovery function.

DSNU472I *csect-name* - **TABLESPACE**
tablespace-name **HAS WRITE ERROR**
RANGE OR IS IN DEFERRED
RESTART.

Explanation: The attempt to externalize table space 'tablespace-name' pages to the media has failed.

Severity: 4 (warning)

System Action: QUIESCE still continues but you cannot make an image copy of the table space. Processing continues for all indexes within the table space and continues to the next table space in the tablespace-list, if any.

User Response: Run DISPLAY DATABASE to determine what exception state, if any, would prevent image copy on the table space.

Problem Determination: Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a discussion of the database recovery function.

DSNU473I *csect-name* - **UNABLE TO**
EXTERNALIZE TABLESPACE
tablespace-name **PAGES**

Explanation: The attempt to externalize TABLESPACE 'tablespace-name' pages to the media has failed.

Severity: 4 (warning)

System Action: QUIESCE still continues but the table space cannot be volume-dumped.

Problem Determination: The problem may be an I/O error.

DSNU474I *csect-name* - **QUIESCE AT RBA**
rrrrrrrrrr **AND AT LRSN** *xxxxxxxxxx*

Explanation: This message displays the log RBA and LRSN at the time of the quiesce. This value is unique for all quiesced table spaces in the list and is recorded in the START_RBA column of the SYSCOPY catalog table entry for each quiesced table space in the list.

Severity: 0 (informational)

System Action: Processing continues.

DSNU475I *csect-name* - **QUIESCE UTILITY**
COMPLETE, ELAPSED TIME=ttttt

Explanation: The message marks the normal completion of the QUIESCE utility. The elapsed clock time that the QUIESCE utility uses is shown by 'ttttt'.

Severity: 0 (informational)

System Action: Processing continues to the next utility statement in the utility job step, if any. If there are

no more utility statements, the utility job step is normally terminated, and the resources are released to their prior available state. The UTILID of the utility job step becomes available for reuse.

DSNU476I *csect-name* - **INDEX** *index-name* **HAS**
WRITE ERROR RANGE OR IS IN
DEFERRED RESTART

Explanation: The attempt to externalize index 'index-name' pages to the media failed.

Severity: 4 (warning)

System Action: QUIESCE processing continues.

User Response: Issue the DISPLAY DATABASE command to determine the exception state,

Problem Determination: Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a discussion of the database recovery function.

DSNU477I *csect-name* - **QUIESCE SUCCESSFUL**
FOR *obj-type obj-qual.obj-name*

Explanation: The QUIESCE for this object was successful. If the object is a table space, then the quiesce for all of its indexes was successful. This message will also be issued for each index with the COPY YES attribute over the quiesced table space. This message will be repeated for every quiesced table space in list.

Severity: 0 (informational)

System Action: All data held in the DB2 buffer pool(s) for the table space and its indexes have been written out to the media if no message DSNU473 or DSNU479 were issued earlier. A SYSCOPY record of ICTYPE 'Q' has been recorded in the SYSCOPY catalog table for the table space and for each of its indexes with the COPY YES attribute. The START-RBA value in the SYSCOPY record(s) is the same for all objects quiesced during this invocation of the utility. This RBA/LRSN value will be printed in the message DSNU474 following this message. Processing continues to the next table space in the table space list, if any.

DSNU478I *csect-name* - **INDEX** *index-name* **HAS**
PENDING STATE

Explanation: Index 'index-name' has a PENDING state. This message is repeated for all PENDING stated indexes in a table space.

Severity: 8 (error)

System Action: QUIESCE stops processing but continues to check all table spaces and indexes for any additional table space or index that has a PENDING state. There is no update in SYSCOPY table for any table space in the list.

User Response: Issue the DISPLAY DATABASE

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command to look at the utility status byte in the DBA table for a specified PENDING state.

Problem Determination: Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a discussion of the database recovery function.

DSNU479I *csect-name* - **UNABLE TO EXTERNALIZE INDEX** *index-name* **PAGES**

Explanation: The attempt to externalize index 'index-name' pages to the media has failed.

Severity: 4 (warning)

System Action: QUIESCE still continues but the table space cannot be volume-dumped.

Problem Determination: The problem may be an I/O error.

DSNU480I *csect-name* - **UNABLE TO EXTERNALIZE TABLESPACE** *tablespace-name* **PARTITION** *partition-number* **PAGES**

Explanation: The attempt to externalize TABLESPACE 'tablespace-name' PARTITION 'partition-number' pages to the media failed.

Severity: 4 (warning)

System Action: QUIESCE still continues, but the table space cannot be volume-dumped.

Problem Determination: The problem might be an I/O error.

DSNU481I *csect-name* - **QUIESCE SUCCESSFUL FOR** *obj-type obj-qual.obj-name* **PARTITION** *partition*

Explanation: The QUIESCE for PARTITION 'partition-number' of this object was successful. If the object is a table space partition, then the quiesce for all of its indexes was successful. This message will also be issued for each index with the COPY YES attribute over the quiesced table space. This message is repeated for every quiesced table space in the list.

Severity: 0 (informational)

System Action: All data held in the DB2 buffer pool(s) for the table space and its indexes have been written out to the media if message DSNU480 or DSNU482 was not issued earlier. A SYSCOPY record of ICTYPE 'Q' was recorded in the SYSCOPY catalog table for the table space and for each of its indexes with the COPY YES attribute. The START-RBA value in this SYSCOPY record is the same for all objects quiesced during this invocation of the utility. This RBA value is printed in message DSNU474 following this message. Processing continues to the next table space in the table space list, if any.

DSNU482I *csect-name* - **UNABLE TO EXTERNALIZE INDEX** *index-name* **PARTITION** *partition-number* **PAGES**

Explanation: The attempt to externalize index 'index-name' 'partition-number' pages to the media failed.

Severity: 4 (warning)

System Action: QUIESCE still continues, but the table space cannot be volume-dumped.

Problem Determination: The problem might be an I/O error.

DSNU483I *csect-name* - **TABLESPACE** *tablespace-name* **PARTITION** *partition-number* **HAS WRITE ERROR RANGE OR IS IN DEFERRED RESTART.**

Explanation: The attempt to externalize table space 'tablespace-name' partition 'partition-number' pages to the media failed.

Severity: 4 (warning)

System Action: QUIESCE still continues, but you cannot make an image copy of the table space or partition. Processing continues for the index partition and all nonpartitioned indexes within the table space, and then proceeds to the next table space in the table space list, if any.

User Response: Issue DISPLAY DATABASE to determine what exception state, if any, would prevent image copy on the table space or partition.

Problem Determination: Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a discussion of the database recovery function.

DSNU484I *csect-name* - **INDEX** *index-name* **PARTITION** *partition-number* **HAS WRITE ERROR RANGE OR IS IN DEFERRED RESTART**

Explanation: The attempt to externalize index 'index-name' pages partition 'partition-number' pages to the media failed.

Severity: 4 (warning)

System Action: QUIESCE processing continues.

User Response: Issue DISPLAY DATABASE to determine the exception state.

Problem Determination: Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a discussion of the database recovery function.

DSNU500I *csect-name* **RECOVERY COMPLETE,
ELAPSED TIME = hh/mm/ss**

Explanation: This message is issued at the normal completion of the RECOVER utility. The time that elapsed since the beginning of the RECOVER utility to its completion was 'hh' hours, 'mm' minutes, and 'ss' seconds.

Severity: 0/4 (informational/warning)

System Action: This message indicates the normal completion of the RECOVER utility. Processing continues to the next utility statement in the utility job step, if any. If not, the utility job step is normally terminated, and the resources held become available for further processing. The UTILID of the utility job step becomes available for reuse.

User Response: The recovered data is now available for further processing.

Operator Response: The recovered resources are available for further processing.

DSNU501I *csect-name* **A PAGE HAS BEEN
STOPPED DURING RECOVERY. SEE
PREVIOUS DSNI012 MESSAGE**

Explanation: This message is issued at the normal completion of the RECOVER utility if the data manager subcomponent cannot apply all the log records for the page because of an inconsistent DB2 log.

Severity: 8 (error)

System Action: This message indicates that the RECOVER utility completed normally except for the page (or pages) that was indicated by the previous DSNI012 messages. The data manager subcomponent marked the pages as broken. All other pages were recovered successfully. Log apply was stopped at the point of the inconsistency in the DB2 log for that page.

User Response: For information about using the REPAIR utility to apply changes that should have been made by the log record in error, refer to *DB2 Utility Guide and Reference*. If you were recovering to the current point in time, resubmit the RECOVER job, and specify 'PAGE(page-number) CONTINUE'. This causes DB2 to retrieve the page from DASD, and apply log records starting after the faulty one.

DSNU502I *csect-name* **PAGE page number WAS
NOT FOUND IN ANY IMAGE COPY
DATA SET**

Explanation: The page specified for 'RECOVER page' was not found in any image copy data sets.

This is an informational message only. It does not indicate termination of processing.

Severity: 0 (informational)

System Action: The RECOVER utility continues processing. The assumption is that the page was inserted after the last image copy was made. The page is reset and recovered from the log, starting at the log RBA recorded in the SYSCOPY record for the last image copy data set.

DSNU503I *csect-name* **PAGE page-number IS
WITHIN PHYSICAL ERROR RANGE**

Explanation: The page specified for 'RECOVER page' is within the physical error range of the table space partition, index space partition, or data set. 'RECOVER page' cannot be effective in this case, because the page would still be within the physical error range and therefore inaccessible to the user.

Severity: 8 (error)

System Action: The RECOVER utility terminates with return code 8. No changes are made to the table space.

User Response: Resubmit the RECOVER utility specifying 'error range'.

DSNU504I *csect-name* **MERGE STATISTICS FOR
obj-type obj-qual.obj-name - NUMBER OF
COPIES = cc, NUMBER OF PAGES
MERGED = nnnnnn, ELAPSED TIME =
hh/mm/ss**

Explanation: This message is issued at the completion of the MERGE process for the MERGECOPY or RECOVER utility. The message indicates the number of image copies currently processed ('cc') and the total number of pages that were merged ('nnnnn'). The same page can be obtained from more than one incremental image copy. MERGE is repeated for MERGECOPY if all of the input image copy data sets cannot be allocated and a temporary work data set has been specified.

For the RECOVER utility, MERGE is executed whether or not there are incremental image copies participating. In this case, the number of copies ('cc') is one.

The elapsed time of the MERGE is 'hh/mm/ss', hours, minutes, and seconds, respectively.

System Action: The MERGECOPY or RECOVER utility continues processing; this message is for information only.

User Response: The statistics are indicative of the processing required. For MERGECOPY, it could indicate that next time more input image copy data sets should be allocated. For example, if there was more than one MERGE pass then this message will be issued more than once. For both MERGECOPY and RECOVER, it could indicate that more frequent invocation of MERGECOPY is appropriate.

DSNU505I *csect-name* **PAGE** *page-number* **IS BEYOND END OF** *obj-type*

Explanation: A page number was found to be beyond the end of the table space, index space, or the current data set.

Severity: 8 (error)

System Action: The RECOVER utility terminates with ABEND 04E reason code 00E40100. If RECOVER PAGE was specified, then the utility terminates with return code 8 and no changes are made to the object.

User Response: Check that the image copy data set(s) in use during the RECOVER contain valid pages. If running RECOVER with the PAGE option, then resubmit the utility with the correct page specified.

DSNU506I *csect-name* **OBJECT**
obj-qualifier.obj-name **DSNUM** *dsnum* **IS IN REORG PENDING STATE**

Explanation: This message is issued at completion of a utility when an object has the REORP state set.

The utility can set the REORP state if the table space contains a table that includes an identity column. It can also set the REORP state when a partitioned table space, which has had its limiting keys altered, is recovered to a point in time.

Severity: 0 (informational)

System Action: The utility continues processing.

DSNU507I *csect-name* **NO USABLE BACKUP FOR RECOVER**

Explanation: The RECOVER utility determined that a backup was required but not found. The utility encountered one of the following situations:

- An error occurred while processing the oldest available full image copy data set. This might be the only full image copy data set available.
- While scanning backward through the SYSCOPY table, a LOAD LOG(NO) or REORG log(NO) record type was found.

Any of the following is acceptable as a backup:

- A full image copy.
- A LOAD LOG(YES).
- A REORG LOG(YES).
- For RECOVER PAGE, an incremental image copy that contains the specified page.
- A 'no record found' return from the first request for a SYSCOPY record indicates that the object was entirely populated by 'inserts'. The object will be recovered from the DB2 log if its entire history lies within the scope of the log, that is, archive log data sets containing updates for the object have not been deleted.

Severity: 8 (error)

System Action: The RECOVER utility terminates.

User Response: Re-create the object that was to be recovered.

DSNU508I *csect-name* **IN FALL BACK PROCESSING TO PRIOR FULL IMAGE COPY**

Explanation: One of the following occurred:

- The RECOVER utility could not allocate the most recent full image copy data set. The prior full image copy is used.
Accompanying messages indicate why the image copy data set could not be allocated.
- PAGE or ERROR RANGE was specified and the recoverable point identified an image copy that was created by the DFSMSdss DUMP command with the CONCURRENT option. Such an image copy cannot be used to process PAGE or ERROR RANGE. A prior recoverable point is located.

System Action: The RECOVER utility continues processing, searching for the prior image copy.

DSNU509I *csect-name* - **NO ERROR RANGE TO RECOVER**

Explanation: The RECOVER utility was invoked to recover the existing ERROR RANGE. However, no ERROR RANGE was found.

Severity: 4 (warning)

System Action: This message indicates the completion of the RECOVER ERROR RANGE utility. Processing continues to the next utility statement in the utility job step. If there are no more utility statements, the utility job step is normally terminated.

DSNU510I *csect-name* **NO GOOD FULL IMAGE COPY DATA SET FOR RECOVERY OF**
obj-type obj-qual.obj-name

Explanation: It is not possible to locate a good image copy data set from which to recover. Either no back level image copy exists, an I/O error occurred while reading the back level image copies, or DB2 was unable to locate a suitable image copy. The return code that accompanies this message is 0 or 8 under the following conditions:

- The return code is 0 if a full image copy is not found in the SYSCOPY table during RECOVER initialization or during fall back processing. However, a LOG(YES) event was detected and recover continues from the log. Note that if you have performed a REORG after your last image copy, then no full image copy may be found in the SYSCOPY table.
- The return code is 8 if the RECOVER utility is in fall back mode and no base recoverable point (a full

image copy or LOG(YES) event) was found in the SYSCOPY table. Further utility processing is terminated.

Severity: 0 (informational) or 8 (error)

System Action: If the return code is 0, processing continues. If the return code is 8, further utility processing is terminated.

User Response: Notify the system programmer if the return code is 8. If the return code is 0, no action is required.

Operator Response: If the return code is 8, the object in question should be started for utility-only processing (if it is not in this state already) until corrective action is taken. If the return code is 0, no action is required.

System Programmer Response: If the return code is 8 and the object being recovered is a table space, the data must be repaired so that an image copy can be taken. An internal error might be involved, and system support might be required. If the return code is 8 and the object being recovered is an index space, then the REBUILD INDEX utility can be used to rebuild the index from the data. If the return code is 0, no action is required. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a discussion of database recovery procedures.

DSNU511I *csect-name* **RECOVERY INFORMATION INDICATES THAT** *obj-type*
obj-qual.obj-name **IS NOT IN A RECOVERABLE STATE**

Explanation: The requested recovery of an object would result in recovery entirely from the log. Because the object is also in copy pending status, recovery might fail in log apply in these situations:

- A previous MODIFY utility job deleted the last recoverable point indicated in the SYSCOPY catalog table.
- A previous MODIFY utility job deleted all SYSCOPY entries.

In either case, the MODIFY utility leaves the object in copy pending status and the RECOVER utility is unable to determine the reliability of recovery from the log.

Severity: 8 (error)

System Action: The RECOVER utility terminates with return code 8.

User Response: Determine the recoverability status of the object. SYSCOPY information is probably not useful as no recoverable point (FULL IMAGE COPY, REORG LOG(YES) or LOAD REPLACE LOG(YES)) was found by the RECOVER utility. User information might be the only indication about recoverability.

To allow RECOVER to execute, copy pending status must be turned off. It is safest to make a full image copy before attempting the recovery. Then run the

RECOVER utility with the TORBA or TOLOGPOINT option.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSNU512I *csect-name* **DATA SET LEVEL RECOVERY IS REQUIRED FOR** *obj-type*
obj-qual.obj-name

Explanation: Recovery was requested for an entire object. However, there is an image copy made for a specific data set associated with the object. Hence, the object must be recovered by data set.

Severity: 8 (error)

System Action: RECOVER completes unsuccessfully with a return code of 8.

User Response: Terminate the current RECOVER job. Then, submit a RECOVER job by specifying 'DSNUM(data set number)' for each data set for which recovery is required. Refer to *DB2 Utility Guide and Reference* for a discussion of RECOVERY utility constraints.

DSNU513I *csect-name* **RECOVER UTILITY LOG APPLY RANGE IS RBA xxx LRSN xxx TO RBA yyy LRSN yyy**

Explanation: The RECOVER utility issues this message one or more times to display the entire log range before applying updates. The RBA and LRSN values are equal in a non-data sharing environment. The RBA values will be zero in a data sharing environment for the catalog and directory objects that do not have DSNCB01.SYSLGRNX entries. This includes catalog table spaces DSNCB06.SYSCOPY and DSNCB06.SYSGROUP and all of their indexes, and all of the directory objects.

Severity: 0 (informational)

System Action: The RECOVER utility continues processing.

DSNU514I *csect-name* **RECOVERY DATA DOES NOT PERMIT DSNUM(ALL) RECOVERY OF** *obj-type obj-qual.obj-name*

Explanation: Recovery was requested for an entire object. If the object is a table space, then the latest activity on the entire table space was a REORG LOG (NO) or a LOAD LOG (NO). If the object is an index space, then the latest activity on the entire index space was a REORG INDEX or REBUILD INDEX. If full image copies have been taken at the data set level since then, recover the object on the data set level.

Severity: 8 (error)

System Action: RECOVER completes unsuccessfully with a return code of 8.

User Response: Submit a recover job by specifying DSNUM (data set number) for each data set requiring recovery. If the object is an index space, then the REBUILD INDEX utility may be used to rebuild the index. Refer to *DB2 Utility Guide and Reference* for a discussion of RECOVERY utility constraints.

DSNU515I *csect-name* **THE IMAGE COPY DATA SET** *dsn* **WITH DATE=***date* **AND TIME=***time* **IS PARTICIPATING IN RECOVERY OF** *obj-type obj-qual.obj-name*

Explanation: This message is issued by the RECOVER utility for each participating image copy data set before it opens the data set and begins the restore process. If an error occurs while processing, the utility searches for a new recoverable base.

This message is routed to SYSOUT.

Severity: 0 (informational)

System Action: RECOVER processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for a discussion of RECOVERY utility constraints.

DSNU516I *csect-name* **NO FULL IMAGE COPY AFTER LOAD OR REORG LOG(NO) OF** *obj-type obj-qual.obj-name*

Explanation: RECOVERY was requested for a data set of an object. If the object is a table space, then a full image copy was not taken after or during a LOAD or REORG without logging. The table space is in an unrecoverable state. If the object is an index space, then a full image copy was not taken after a REORG INDEX or REBUILD INDEX.

Severity: 8 (error)

System Action: RECOVER completes unsuccessfully with a return code of 8.

User Response: If the object is a table space, the data set is in an unrecoverable state. If the object is an index space, then the REBUILD INDEX utility may be used to rebuild the index. Notify the system programmer for corrective action.

System Programmer Response: The data should be repaired before a full image copy is taken. The recovery information for the object (use the REPORT RECOVERY utility) should be scrutinized. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a discussion of database recovery procedures.

DSNU517I *csect-name* - **SYSCOPY RECORD DELETED BY MODIFY UTILITY.** **DSN=***dsn*, **VOL=***SER=nnn*, **FILESEQNO=***fff*

Explanation: This message is repeated for each volume of a multivolume data set that is deleted.

The variables have the following meanings:

dsn The name of the image copy data set whose record was removed from the SYSCOPY table by the MODIFY utility.

nnn The serial number of the volume containing the data set.

fff The tape file sequence number. It will be zero for DASD data sets.

Severity: 0 (informational)

System Action: The MODIFY utility continues its termination processing.

System Programmer Response: Because DB2 no longer has any knowledge of the image copy data set, you may delete it and reuse the space. If the last full image copy was deleted, ensure that another one is taken as soon as possible.

DSNU518I *csect-name object-type object-qualifier.object-name* **CONTAINS BROKEN PAGE** *page-number*, **ERROR CODE** *error*

Explanation: A broken page, *page number*, was detected during execution of an image copy utility job. The copy step is terminated and the broken page is not copied to the output data set.

Severity: 8 (error)

System Action: COPY utility ends with a return code of 8.

User Response: The associated data set has not been copied. If the object is in the COPY-pending status, it is in an unrecoverable state. Notify the system programmer for corrective action.

System Programmer Response: Use either the RECOVER, RECOVER PAGE, or REPAIR utility to correct the broken page. Refer to Part 4 (Volume 1) of *DB2 Administration Guide*. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU519I *csect-name* **TOCOPY DATA SET NOT FOUND**

Explanation: The data set specified with the keywords TOCOPY, TOVOLUME, or TOSEQNO cannot be found in the SYSCOPY table for the object to be recovered.

This may be caused by a mismatch in granularities. If the RECOVER specifies a particular DSNUM, the data

set specified with the TOCOPY keyword may be for an image copy of this DSNUM or of the entire table space or index space. However, if the RECOVER is for the entire table space or index space, the specified data set must be for an image copy of the entire table space or index space.

This message may also be issued if TOVOLUME is specified for a cataloged data set.

RECOVER TOCOPY can issue DSNU519I even if the data set information was correct but the data set was not for this site. For example, if the DB2 subsystem is specified as LOCALSITE, but the TOCOPY data set information is for a RECOVERYSITE data set, this message will be issued.

Severity: 8 (error)

System Action: RECOVER processing is terminated.

User Response: Correct the input and resubmit the RECOVER job.

DSNU520I *csect-name* **RECOVER TO A PRIOR POINT IN TIME MIGHT LEAVE TABLE SPACE *table-space-name* INCONSISTENT**

Explanation: RECOVER DSNUM to a previous point in time (for example, using the TOLOGPOINT option) was specified for a nonpartitioned table space. You might have recovered a data set that has different compression characteristics than the replaced data set. For example, the data set to which you recovered might have been compressed with a different dictionary.

Severity: 4 (warning)

System Action: Processing continues.

User Response: The table space might be in an inconsistent state. If the dictionary was not built with the data set that was just recovered, the results are unpredictable and might jeopardize all the data in the entire table space.

Recover all of the data sets in the table space to the same point in time. Do not ignore this message unless all data sets in this table space were recovered to the same point in time. Otherwise, the state of this nonpartitioned table space is inconsistent and unpredictable.

DSNU521I *csect-name* - **RECOVER UTILITY FAILED. UNABLE TO READ REQUIRED LOG RECORDS.**

Explanation: Recovery was requested for a table space, index space, or data set. An attempt was made to apply changes from the DB2 log, but the necessary log records could not be read from the log data set. This message is accompanied by message DSNI007I.

Severity: 8 (error)

System Action: The RECOVER utility completes unsuccessfully with return code 8.

User Response: Consult the system programmer for corrective action.

Operator Response: Provide the console listing of the DSNI007I message for the system programmer.

System Programmer Response: Run the print log map (DSNJU004) utility. Find the data set that contains the requested RBA or LRSN from the output of the utility.

Problem Determination: If no listed data set contains the required RBA or LRSN, one of the following might have occurred:

- The data set was deleted from the bootstrap data set (BSDS) by the change log inventory (DSNJU003) utility. Rerun the utility to insert the missing data set name. DB2 must be stopped to run this utility.
- The BSDS was damaged. The BSDS can be restored using the dump and the most recent archive log data set. Run the change log inventory (DSNJU003) utility to supply changes that occurred during and after the last offload operation. Changes can be determined from the operator's console listing.

If a listed log data set contains the required RBA or LRSN, this message is preceded by one or more DSNJxxx error messages. See the explanation of those messages for the appropriate action.

DSNU522I *csect-name* **RECOVER CANNOT PROCEED FOR *obj-type* *obj-qual.obj-name* BECAUSE A NON-RECOVERABLE EVENT HAS BEEN ENCOUNTERED FROM SYSIBM.SYSCOPY WHICH HAS DBNAME=*dbname* TSNAME=*tsname* DSNUM=*dsnum* ICTYPE=*ictype* START_RBA=*X' rba'***

Explanation: Recovery was requested for an index, but activity on its table space (identified by the SYSIBM.SYSCOPY columns) prohibits recovery. The use of an index's full image copy by recovery is prohibited by a REORG or LOAD on its underlying table space.

Severity: 8 (error)

System Action: Utility processing is terminated. All objects in the RECOVER statement are left in the same state as before the RECOVER utility was invoked.

User Response: Use the REBUILD INDEX utility to rebuild the index from the table space. For more information about the recoverability of this index, run the REPORT RECOVERY utility on both the index and its table space.

DSNU523I *csect-name* - RECOVER UTILITY FAILED. NO FULL IMAGE COPY WAS AVAILABLE AND THE FIRST LOG RECORD WAS NOT THE REQUIRED INITIALIZATION RECORD.

Explanation: RECOVER was requested for a table space or a data set of a table space and no image copy was available. Recovery was attempted from the log and failed due to missing data set initialization records. Specifically, the log records which format space map and header pages were missing.

Severity: 8 (error)

System Action: RECOVER completes unsuccessfully with a return code of 8.

User Response: The associated data set has been reset to an empty state. Notify system programmer for corrective action.

System Programmer Response: Use the problem determination information given below to determine if a user error has occurred. If possible, correct the error and resubmit the RECOVER utility job for this table space or data set. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a discussion of possible recovery procedures.

Problem Determination: This message was preceded by message DSNU513I which identifies the log RBA range being applied. Run the print log map (DSNJU004) utility for the table space in question over the indicated log RBA range.

This will show what log records are present and may assist in determining if a log data set has been damaged or deleted, or if the BSDS has been damaged. If damage to table space DSNDB01.SYSLGRNX is suspected, recover it and attempt the earlier failing recovery again.

DSNU524I *csect-name* INVALID DATA SET OR PARTITION NUMBER num SPECIFIED FOR *obj-type obj-qual.obj-name*

Explanation: An invalid number was specified for the data set or partition of the object named in the utility statement.

Severity: 8 (error)

System Action: Further utility processing terminates.

User Response: Correct the data set/partition number, or verify that the object name is specified correctly. Then resubmit the utility statement in a new utility job step. Refer to *DB2 Utility Guide and Reference* for a description of the particular utility options.

DSNU525I *csect-name* RECOVERY DATA DOES NOT PERMIT DSNUM(ALL) RECOVERY OF *obj-type obj-qual.obj-name*

Explanation: Recovery was requested for an entire object. However, the object is not recoverable at that level for one of the following reasons:

- The object was recovered to a point in time (for example, TOLOGPOINT was specified), which required fall back processing. However, no subsequent image copy was taken to establish a base for recovery.
- A partition of the object was recovered to a point in time after the last full image copy of the object was taken.

Severity: 8 (error)

System Action: The RECOVER utility completes unsuccessfully with return code 8.

User Response: Submit the RECOVER job with DSNUM specified for each data set for which recovery is required. Refer to *DB2 Utility Guide and Reference* for information about the RECOVER utility.

DSNU526I *csect-name* - NO FULL IMAGE COPY AFTER PARTIAL RECOVERY OF *obj-type obj-qual.obj-name*

Explanation: Recovery was requested for a data set of an object. However, an earlier point-in-time recovery (for example, using the TOLOGPOINT option) was specified and no subsequent image copy was taken to establish a base for recovery. The object is in a nonrecoverable state.

Severity: 8 (error)

System Action: The RECOVER utility completes unsuccessfully with return code 8.

User Response: The associated data set is in a nonrecoverable state. Consult the system programmer for corrective action.

System Programmer Response: You can use the RECOVER utility with the TOCOPY, TORBA, or TOLOGPOINT option to force recovery to an earlier point in time. You can use the DSN1COPY utility to restore the data set to an earlier image copy. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a discussion of database recovery procedures.

DSNU527I *csect-name* DB2 OBJECT REBUILT TO AN INDETERMINATE POINT

Explanation: The image copy data set specified with the TOCOPY keyword of the REBUILD utility was one of the following:

- An image copy dataset made with the SHRLEVEL CHANGE option. In this mode, changes might have been made to the object while image copy was in

progress. If a change was made to a page before image copy processed the page, the update will be in the copy data set. If a change was made to a page after image copy processed it, the change will not appear in the copy data set. The data set may contain partial updates from some transactions.

- An image copy dataset made during the LOAD REPLACE utility. An image copy produced during LOAD REPLACE will not contain updates made to the table space to correct unique index violations during the INDEXVAL phase or referential constraint violations during the ENFORCE phase. Therefore, it is not recommended as a REBUILD y point.

If the object REBUILT is a table space, then indexes on the table space are placed in REBUILD pending status and dependent table spaces, if any, are placed in check pending status. The indexes placed in REBUILD pending are identified by message DSNU557I, and the dependent table spaces placed in check pending are identified by message DSNU563I.

Severity: 4 (warning)

System Action: The utility terminates normally.

User Response: Based on the explanation above, determine if the REBUILD y is satisfactory. Rebuild the indexes identified by message DSNU557I in the job output. Run CHECK DATA on the table spaces identified by message DSNU563I to correct any referential constraint violations.

Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a discussion of database REBUILD procedures.

DSNU528I NO FULL IMAGE COPY WAS AVAILABLE AND THERE ARE NO UPDATES TO APPLY FROM THE DB2 LOG FOR TABLESPACE
tablespace-name **DSNUM** *dsnum*

Explanation: Recovery was requested for a table space or a data set of a table space and no image copy was available. If *dsnum* is 0, then recovery was requested at the table space level. Recovery was attempted from the log, but no log records were applied because no SYSLGRNX records corresponding to the recovery scope were found.

Severity: 8 (error)

System Action: The associated data set was reset to an empty state and the data set was placed in REBUILD PENDING status. If REBUILD was processing a TABLESPACE list, only the associated data set was reset to an empty state but all data sets in the list were placed in REBUILD PENDING status.

User Response: If the TORBA or TOLOGPOINT option was specified, use the information in the problem determination section to verify that it is a valid RBA or LRSN. Correct the error and resubmit the REBUILD utility for the table space.

System Programmer Response: Use the information in the problem determination section to determine if a user error occurred. Correct the error and resubmit the REBUILD utility for the table space. Also refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a discussion of possible recovery procedures.

Problem Determination: Execute the REPORT RECOVERY utility for the table space at the appropriate table space or data set level (that is, DSNUM). The output shows the recovery points (SYSCOPY records) and the update log ranges (SYSLGRNX records) that exist for the table space.

DSNU529I *csect-name* **INVALID SPECIFICATION OF TORBA = xxx**

Explanation: 'xxx' is the log RBA specified for the RECOVER utility TORBA keyword. The RBA is not within the scope of the log.

Severity: 8 (error)

System Action: The RECOVER utility terminates with a return code of 8 without making any changes to the object to be recovered.

User Response: Correct the input and resubmit the job. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for a discussion of database recovery procedures.

Problem Determination: The listing produced by the print log map (DSNJU004) utility will show the current extent of the DB2 log.

DSNU530I *csect-name* - **MULTIPLE DATA SETS FOUND FOR THE COPY DATA SET SPECIFICATION**

Explanation: DB2 issues this message during the RECOVER or COPYTOCOPY utility when the specification of the input image copy dataset is ambiguous and does not uniquely identify an image copy. Multiple image copies were found in SYSIBM.SYSCOPY for the object with the same data set name.

Severity: 8 (error)

System Action: Processing halts for this object.

RECOVER completes unsuccessfully with a return code of 8.

For the COPYTOCOPY utility, if the utility job step includes an OPTIONS control statement with the EVENT(ITEMERROR,SKIP) option, the utility will process the next item in the list.

User Response: Two or more DSNU531I messages will follow this message providing more information about each duplicate data set. Select the correct data set from the DSNU531I messages.

Rerun the RECOVER job, specifying a unique

DSNU531I • DSNU535I

combination of TOVOLUME and TOSEQNO.

Rerun the COPYTOCOPY job, specifying an unique combination of FROMVOLUME and FROMSEQ.

DSNU531I *csect-name - dsn* **EXISTS WITH - VOLUME=vol, FILE SEQUENCE NUMBER=fseq, RBA=rba, DATE=date, TIME=time**

Explanation: DB2 issues this message two or more times to document the duplicate data sets detected by the RECOVER utility during TOCOPY processing, or by the COPYTOCOPY utility during FROMCOPY processing. See the explanation for message DSNU530I.

Severity: 8 (error)

System Action: RECOVER completes unsuccessfully with a return code of 8.

For COPYTOCOPY, if the utility job step includes an OPTIONS control statement with the EVENT(ITEMERROR,SKIP) option, the next item in the list will be processed.

User Response: Use the information provided in all of the DSNU531I messages to determine the correct data set for this recovery. 'rba', 'date' and 'time' are provided for each data set to assist in the selection. The DSNU531I message for the data set you select will provide the correct 'vol' and 'fseq' values to be specified on the TOVOLUME and TOSEQNO keywords respectively.

Rerun the RECOVER job specifying TOCOPY and TOVOLUME(vol-ser). Include the TOSEQNO(fseq) keyword if it is necessary to distinguish an unique data set.

Rerun the COPYTOCOPY job specifying FROMCOPY and FROMVOLUME(vol-ser). Include the FROMSEQNO(fseq) keyword if it is necessary to distinguish a unique data set.

DSNU532I *csect-name - RECOVER obj-type obj-qual.obj-name* **START**

Explanation: This message is issued when there is more than one object in the list. It indicates that the recover of a particular object is starting. If the PARALLEL keyword has been specified, then the restore phase messages for different objects in the list may be intermingled.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: RECOVER processing continues.

DSNU533I *csect-name - obj-type obj-qual.obj-name* **IS A DUPLICATE OF obj-type obj-qual.obj-name**

Explanation: The utility found a duplicate object in the list. The object name may indicate a partition or piece number.

Severity: 8 (error)

System Action: The utility job terminates processing.

User Response: Correct the object list. Resubmit the job if needed.

DSNU534I *csect-name* **TARGET RECOVERY POINT IS NOT A QUIESCE POINT**

Explanation: The RECOVER utility attempted to recover to a point in time (for example, using the TOLOGPOINT option) and one of the following conditions has been detected:

- The table space set is not being recovered to a quiesce point or to a common image copy SHRLEVEL(REFERENCE) point.
- Not all table spaces in the table space set have the same quiesce point.
- A table space in the set contains a dependent table with a referential constraint that was defined after the specified quiesce point.

A table space set is a group of table spaces that are referentially related or it can be a base table space and its associated LOB table spaces.

Severity: 4 (warning)

User Response: If possible, recover the table space set to a quiesce point or a common image copy SHRLEVEL(REFERENCE) point. Otherwise, use the CHECK DATA utility to check and correct referential violations. Use the CHECK DATA utility on the base table space and the CHECK LOB utility on the LOB table space(s) to validate the LOB columns.

DSNU535I *csect-name - FOLLOWING* **TABLESPACES RECOVERED TO A CONSISTENT POINT**

Explanation: This message will be issued by the RECOVER utility when it determines that a table space set (a group of referentially related table spaces or a base table space and its lob table spaces) were recovered to a quiesce or to a common image copy SHRLEVEL(REFERENCE) point. All table spaces in the table space set will be listed after this message heading.

Severity: 0 (informational)

System Action: No action is taken.

DSNU536I *csect-name* - RELATIONSHIP *r* ON
TABLE *t* CREATED AFTER QUIESCE
POINT

Explanation: The relationship named 'r' was created on the dependent table, 't', after the quiesce point used for recovering to a point in time. The table space in which 't' resides is set to check pending beginning with the first record of 't'.

Severity: 4 (warning)

System Action: No action is taken.

User Response: Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for the failure analysis procedure for the check pending state.

DSNU537I *csect-name obj-type obj-qual.obj-name* IS
NOT ALLOWED IN THE LIST

Explanation: The RECOVER or COPY utility found a directory or catalog table space in a list with other table spaces or with user-defined indexes.

The table spaces that the COPY utility will not allow in a list with other table spaces are DSNDB01.SYSUTILX, DSNDB06.SYSCOPY, and DSNDB01.SYSLGRNX.

However, these table spaces may be specified with their IBM-defined indexes in a list.

You cannot recover more than one directory or catalog table space in a list. Directory and catalog table spaces must be recovered individually in a particular order because the recovery of some objects depends on information derived from others. The correct order is documented in Part 4 (Volume 1) of *DB2 Administration Guide*. IBM-defined indexes may be specified with their associated directory or catalog table space in a list.

Severity: 8 (error)

System Action: The utility job terminates.

User Response: Remove the directory and catalog object names from the list. Then submit the COPY or RECOVER job again.

DSNU538I RECOVER ERROR RANGE OF
DSN=*dataset name* ON
VOLUME=*volser* FROM
CCHH=X'*ccccchhh*' TO
CCHH=X'*ccccchhh*' CONTAINS
PHYSICAL ERROR

Explanation: This message indicates that the error range involved in the error range recover '*dataset name*' is the data set which has the physical error. The data set resides on DASD volume '*volser*' and the error range is from track address X'*ccccchhh*' to track address X'*ccccchhh*'.

If the error range of a data set covers more than one extent or more than one volume, then there will be one message per extent per volume.

Severity: 8 (error)

System Action: Physical I/O error is detected during error range recover, processing terminated with return code 8.

System Programmer Response: A DSNU086 message is issued to the console by DB2 while running error range recovery; this indicates that the physical error is not recovered. User must run ICKDSF or equivalent service utility to recover the physical error then re-run the error range recover again.

Problem Determination: Use the information provided by this message to run ICKDSF and then run error range recover again.

DSNU539I *csect-name* - RECOVER PROCEEDS AT
THE *site-type* SYSTEM

Explanation: The RECOVER process continues at the RECOVERY SITE system, and/or the TRACKER SITE system. DB2 issues this message for informational purposes only.

Severity: 0 (informational)

System Action: The utility continues.

DSNU540I *csect-name* DYNAMIC ALLOCATION
FOR DATA SET *data-set-name* WILL
WAIT FOR UNIT TO BECOME
AVAILABLE

Explanation: A request to dynamically allocate a data set for a BATCH UTILITY job was refused because a unit was not available. The request was repeated after setting an indicator in the dynamic allocation parameter list to cause the job to wait until a unit becomes available.

Severity: 0 (informational)

System Action: Processing continues after a unit becomes available and is allocated.

DSNU541I UNABLE TO ALLOCATE THE PRIMARY
COPY DATASET *data-set-name*,
BACKUP COPY IS USED

Explanation: If RECOVER or MERGECOPY has an allocation error on the primary copy data set, it will locate the backup copy data set for the same system (local or recovery). The utility continues.

Severity: 0 (informational)

DSNU542I *csect-name* - UNABLE TO OPEN THE
PRIMARY COPY DATASET
dataset-name, BACKUP COPY IS USED

Explanation: If RECOVER or MERGECOPY has an open error in the primary copy data set, it will deallocate that copy data set and try to allocate the backup copy

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data set for that same system (local or recovery). The utility continues.

Severity: 0 (informational)

DSNU543I *csect-name* - I/O ERROR READING PAGE *page_number* IN THE PRIMARY COPY DATASET *dataset-name*, BACKUP COPY IS USED

Explanation: If RECOVER or MERGECOPY has an I/O error when reading a page, with the specified page number, from the primary copied data set, it will locate the backup copied data set in that same system (local or recovery) and continue reading pages starting from the page number in error.

Severity: 0 (informational)

DSNU544I *csect-name* - UNABLE TO OPEN THE COPY DATASET *dataset-name* FOR THE RECOVERY OF *obj-type* *obj-qualifier.obj-name*, RC= *reason-code*

Explanation: RECOVER was unable to open the data set 'dataset-name'. because of 'reason-code' from the open abend. The 'reason-code' is taken from field SDWAABCC in the SDWA.

Severity: 0 (informational)

System Action: The RECOVER utility continues processing, searching for the prior image copy or applying log records.

DSNU545I *csect-name* - I/O ERROR READING PAGE *page-number* IN THE COPY DATASET *dataset-name* DURING RECOVERY OF *obj-type* *obj-qual.obj-name*

Explanation: An I/O error was detected while reading page 'page-number' from copy dataset 'dataset-name'. The message is issued when 1) The data set is the primary copy data set and there is no backup data set. 2) Open error is from the backup copy data set.

Severity: 0 (informational)

System Action: The RECOVER utility continues processing, searching for the prior image copy or applying log records.

DSNU546I LOGONLY RECOVER CANNOT PROCEED BETWEEN BEGINNING RBA 'xxxxxxxxxxxxx' AND ENDING RBA 'yyyyyyyyyyyyy' ON DSNUM *dsnum* BECAUSE A NON-RECOVERABLE EVENT HAS BEEN ENCOUNTERED FROM SYSIBM.SYSCOPY WHICH HAS DBNAME=*database-name* TSNAME=*space-name* DSNUM=*dsnum* ICTYPE=*x* START_RBA=X'zzzzzzzzzzz'.

Explanation: A nonrecoverable event (for example, LOAD LOG(NO), REORG LOG(NO)) occurred within the log range between the beginning log RBA or LRSN and ending log RBA or LRSN for the RECOVER LOGONLY utility.

This message is issued by the following CSECT: DSNUCASA

Severity: 8 (error)

System Action: The RECOVER utility completes unsuccessfully with return code 8.

System Programmer Response: Find a proper prior point in time as a target recovery point and rerun the RECOVER utility job with the TORBA, TOCOPY, or TOLOGPOINT option. For a discussion of database recovery procedures, refer to Part 4 (Volume 1) of *DB2 Administration Guide*.

DSNU547I LOGONLY RECOVER CANNOT PROCEED BECAUSE THE STARTING RBA=X'xxxxxxxxxxxx' IN THE HEADER PAGE PGNO=X'xxxxxx' FOR *obj-type* *obj-qual.obj-name* IS INVALID.

Explanation: One of the following occurred:

- The data set was restored from an earlier release backup that does not have a starting RBA or LRSN in the header page.
- The TORBA or TOLOGPOINT option is specified to an RBA or LRSN that is lower than the starting RBA or LRSN in the header page.

Severity: 8 (error)

System Action: The RECOVER utility job terminates with return code 8.

System Programmer Response: Use the RECOVER utility without the LOGONLY option, if possible, or change the RBA or LRSN of the TORBA or TOLOGPOINT option to a valid RBA or LRSN value.

DSNU548I DBID=X'xxxx' and PSID=X'xxxx' IN THE
HEADER PAGE OF *obj-type*
obj-qual.obj-name DO NOT MATCH THE
DB2 CATALOG.

Explanation: The DBID and PSID in the header page do not match the DB2 catalog. It is likely that the wrong data sets were restored.

Severity: 8 (error)

System Action: The RECOVER utility job terminates with return code 8.

System Programmer Response: Find the correct data sets and rerun the job.

DSNU549I RECOVER *obj-type obj-qual.obj-name*
dsnum USES ONLY DB2 LOGS
STARTING FROM
LOGPOINT=X'xxxxxxxxxxxx'.

Explanation: The RECOVER utility issues one message for each DB2 object that uses only DB2 logs to recover. In a non data-sharing environment, the LOGPOINT value is specified by an RBA; in a data sharing environment it is specified by an LRSN.

Severity: 0 (informational)

System Action: RECOVER utility processing continues.

DSNU550I *csect-name* INDEX NAME= *index-name*
IS EMPTY

Explanation: While attempting to REBUILD the indicated index, it was determined that the table upon which the index is based is empty.

Severity: 4 (warning)

System Action: Utility processing proceeds to the next utility request, if any.

DSNU551I *csect-name* INDEX NAME= *index-name*
PART=*part-num* IS EMPTY

Explanation: While attempting to REBUILD the indicated index partition, it was determined that the partition upon which the specified index partition is based is empty.

Severity: 4 (warning)

System Action: Utility processing proceeds to the next utility request, if any.

DSNU552I *csect-name* RECOVER CANNOT
PROCEED BECAUSE THE
starting/ending LOGPOINT *xxx* IS NOT
WITHIN THE RECOVERY RANGE OF
xxx AND *xxx* FOR *obj-type*
obj-qual.obj-name

Explanation: The starting or ending LOGPOINT found for this recovery job is outside the available recovery information. A LOGPOINT value is an RBA or LRSN. The RECOVER utility cannot process this request.

Severity: 8

System Action: The RECOVER utility terminates.

User Response: Use the recovery information that is available from the REPORT utility. Execute the RECOVER utility within the available recovery range.

DSNU553I *csect-name* INVALID PARTITION
NUMBER=*nnnn* SPECIFIED FOR INDEX
NAME=*iiii*

Explanation: An invalid partition number *nnnn* was specified for index *iiii* in the utility statement.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Correct the partition number or verify that the index name is specified correctly, and resubmit the utility statement in a new utility job step. Refer to *DB2 Utility Guide and Reference* for a description of the particular utility options.

DSNU554I *csect-name* - DUPLICATE INDEX
NAMES EXIST IN THE SPECIFIED
INDEX NAME LIST

Explanation: When attempting to CHECK or REBUILD the indicated indexes, it was determined that duplicate index names were specified in the index name list.

Severity: 8 (error)

System Action: The utility job terminated.

User Response: Correct the index-name(s) in the index name list and resubmit the job.

DSNU555I *csect-name* UNLOAD PHASE
STATISTICS, NUMBER OF
RECORDS=*xxxx*

Explanation: This message is issued at the normal completion of the UNLOAD phase of the REBUILD INDEX utility. It gives the number of records that were unloaded (*xxxx*) for the specified table space.

Severity: 0 (informational)

DSNU556I *csect-name* RECOVER CANNOT PROCEED FOR *obj-type obj-qual.obj-name* BECAUSE A SYSCOPY RECORD HAS BEEN ENCOUNTERED WHICH HAS DBNAME= *dbname* TSNAME= *tsname* DSNUM= *dnum* ICTYPE= *ictype* STARTRBA=X'*rba*' LOWDSNUM= *lowdsnum* HIGHDSNUM=*highdsnum*.

Explanation: A SYSCOPY record has been encountered that prohibits recovery processing. If the ICTYPE column is a:

R,S,W, or X

Then a SYSCOPY record for a REORG or LOAD REPLACE that redistributed data across partitions has been encountered. The partitions that were affected by the ALTER INDEX that changed the limit keys must be recovered in the same list. An STYPE=S indicates that the CATENFM Utility was run, and a point-in-time recovery prior to the CATENFM process is not allowed unless the entire system (including the DB2 catalog and directory) are recovered to the same point.

A

An attempt has been made to recover an index to a point in time prior to a first Alter Table Column that altered the index key column. This is not allowed.

- An STYPE=R indicates that a table space partition was rotated and a point in time recovery prior to the rotation is not allowed. If the object being recovered is an index partition or a LOB table space belonging to the rotated partition, then those objects cannot be recovered prior to the rotation.
- An STYPE=V indicates that an ALTER TABLE COLUMN occurred on an indexed column for a numeric data type change. The index should be rebuilt rather than recovered.
- An STYPE=C indicates that an ALTER took place that added a column to a table and the column was not added to the index in the same commit scope. The index should be rebuilt rather than recovered.
- An STYPE=P indicates that the index was ALTERed to have the PADDED attribute. The index should be rebuilt rather than recovered.
- An STYPE=N indicates that the index was ALTERed to have the NOT PADDED attribute. The index should be rebuilt rather than recovered.

F

An attempt has been made to recover an index to a prior point in time and more than sixteen

Alter Table Columns have been done that altered the index key since that time. This is not allowed.

Severity: 8 (error)

System Action: The Recover Utility terminates with RC8.

User Response: Run the REPORT RECOVERY Utility, and analyze the report of the recovery information for the object.

If rev="tech" a SYSCOPY record for a REORG or LOAD REPLACE that redistributed partition data was encountered, then add the missing partitions to the recover list using the LOWDSNUM and HIGHDSNUM values as a guide.

DSNU557I *csect-name - obj-type obj-qual.obj-name* IS IN REBUILD PENDING STATE

Explanation: If the REBUILD utility issued this message, the corresponding table space to this index was REBUILDed to a point in time with keyword TOCOPY, TOLOGPOINT, or TORBA. Thus, the index was placed in REBUILDy pending status.

If the REBUILD INDEX utility issued this message, the index is in REBUILD pending status. Either duplicate index entries existed during the BUILD phase of the REBUILD INDEX, or invalid KEY/RIDs, which do not belong to the partition of the cluster index, were detected. The duplicate index entries or invalid KEY/RID entries must be resolved before starting the REBUILD INDEX utility again to REBUILD the index and remove the index from REBUILD pending status.

If the REORG utility with SHRLEVEL REFERENCE or CHANGE (or -TERM UTILITY) issued this message, the index is in REBUILD pending status. During the renaming of a data set during REORG, either a data set with the source name did not yet exist or a data set with the target name already existed.

Severity: 4 (warning) or 8 (error)

User Response: If the REBUILD or REORG utility (or -TERM UTILITY) issued this message, use the REBUILD INDEX utility to REBUILD this index.

If the REBUILD INDEX utility issued this message, take one of the following actions:

- Resolve the duplicate index entries or invalid keys and rerun the REBUILD INDEX utility.
- Use the REPAIR SET NORCVRPEND utility or the START DATABASE FORCE command to reset the REBUILD pending status. However, these two options will not correct the index.

DSNU558I *csect-name* **ALL INDEXES OF TABLESPACE= *table space-name* ARE IN REBUILD PENDING**

Explanation: The REBUILD TORBA, TOLOGPOINT, or TOCOPY utility issues this message to inform the user of the state of all indexes belonging to the REBUILDED table space. All indexes were put in REBUILD pending status to prevent data and index inconsistency. All indexes should be REBUILDED before they are used.

System Action: The REBUILD utility completed successfully.

Severity: 4 (warning)

User Response: REBUILD or rebuild all indexes of the REBUILD table space.

DSNU559I *csect-name - obj-type obj-qual.obj-name* **PARTITION *partition number* IS IN REBUILD PENDING STATE**

Explanation: If the REBUILD utility issued this message, one partition of a partitioned table space is being rebuilt to a point in time with keyword TOCOPY, TOLOGPOINT, or TORBA. The corresponding index for that partition was placed in rebuild pending status.

If the REBUILD INDEX utility issued this message, the index or the partition of a cluster index is in rebuild pending status. Either duplicate index entries existed during the BUILD phase of the REBUILD INDEX or INDEX PART, or invalid KEY/RIDs, which do not belong to the partition of the cluster index, were detected. The duplicate index entries or invalid KEY/RID entries must be resolved before starting the REBUILD INDEX utility again to rebuild the index and remove the index from rebuild pending status.

If the REORG utility with SHRLEVEL REFERENCE or CHANGE (or -TERM UTILITY) issued this message, one partition of a partitioned index was placed in rebuild pending status. During the renaming of a data set during REORG, either a data set with the source name did not yet exist or a data set with the target name already existed.

Severity: 4 (warning) or 8 (error)

User Response: If the REBUILD or REORG utility (or -TERM UTILITY) issued the message, rebuild this index with the REBUILD INDEX utility.

If the REBUILD INDEX utility issued this message, take one of the following actions:

- Resolve duplicate index entries or invalid keys and rerun the REBUILD INDEX utility.
- Use the REPAIR SET NORCVRPEND utility or START DATABASE FORCE command to reset the rebuild pending status. However, these two options will not correct the index.

DSNU560I *csect-name - TABLESPACE= database.tablespace PART= partition number* **IS IN RECOVERY PENDING STATE**

Explanation: The table space partition of a table space on which the utility was running is in recovery pending status. A RECOVER TABLESPACE at the partition level is required.

Severity: 4 (warning)

System Action: No action is taken.

User Response: Take one of the following actions:

- Run the RECOVER TABLESPACE utility on the table space partition.
- Run the LOAD REPLACE utility on the table space partition.
- Use the REPAIR SET NORCVRPEND utility or the START DATABASE FORCE command to reset the recovery pending status. However, these two options will not correct the table space.

DSNU561I *csect-name - obj-type obj-qual.obj-name* **PARTITION *part-number* IS IN CHECK PENDING**

Explanation: This message is issued to report the check pending state of the specified partition.

Severity: 4 (warning)

User Response: If the object is a table space partition with referential relationships, then run the CHECK DATA utility to check for referential integrity violations.

If the object is a base table space partition, then run the CHECK DATA utility to validate the auxiliary columns.

If the object is an index space partition, then run the CHECK INDEX utility to verify that the index keys are consistent with the data in the table space partition.

Correct all errors before attempting to use the object again.

DSNU562I *csect name - TABLESPACE database.tablespace* **IS IN RECOVERY PENDING**

Explanation: The table space against which the utility was running is in recovery pending status. A RECOVER TABLESPACE is required.

Severity: 4 (warning)

System Action: No action is taken.

User Response: Take one of the following actions:

- Run the RECOVER TABLESPACE utility on the table space.
- Run the LOAD REPLACE utility on the table space.

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- Use the REPAIR SET NORCVRPEND utility or the START DATABASE FORCE command to reset the recovery pending status. However, these two options will not correct the table space.

DSNU563I *csect name- obj-type obj-qual.obj-name* IS IN CHECK PENDING

Explanation: This message is issued to report the check pending state of the specified object.

Severity: 4 (warning)

User Response: If the object is a table space with referential relationships, then run the CHECK DATA utility to check for referential integrity violations.

If the object is a base table space with LOB columns, then run the CHECK DATA utility to validate the auxiliary columns.

If the object is a LOB table space, then run the CHECK LOB utility to validate the structure of the LOB table space.

If the object is an index space, then run the CHECK INDEX utility to verify that the index keys are consistent with the data in the table space or table space partition.

Correct all errors before attempting to use the object again.

DSNU564I *csect -* RESTART NOT ALLOWED FOR *obj-type obj-qual.obj-name*

Explanation: Restart of the RECOVER utility is not allowed for one of the following reasons:

1. During the RESTORE phase, access to image copies failed. Therefore, RECOVER determined an earlier point of recovery to search for available image copies. RECOVER might not be able to recreate the original failures for restart.
2. The utility uses the LOGONLY option and was previously restarted with RESTART(CURRENT). It cannot now be started with RESTART(PHASE).

Severity: 8 (error)

System Action: The utility job terminates. If RECOVER acts on a list of objects, the restarted job terminates with the first object for which restart is not allowed.

User Response: For case 1, execute REPORT RECOVERY on the object and also collect the output from the previous execution of RECOVER TABLESPACE. Using those two outputs and the console log, determine the reason for the failure during the RESTORE phase. Correct the reason for the failure, if necessary. Terminate the outstanding utility then rerun the RECOVER TABLESPACE without RESTART.

For case 2, restart the utility with RESTART(CURRENT) or restore the data sets and rerun the RECOVER job from the beginning.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1,

DSNU565I *csect-name* CHECK CONSTRAINT *constraint-name* ON TABLE *table-name* WAS CREATED AFTER THE TARGET RECOVERY POINT

Explanation: The check constraint *constraint-name* was created on table *table-name* after the target recovery point. The target recovery point is the specified time or RBA in the point-in-time recovery. The associated table space was placed in check pending status because the RECOVER utility cannot determine whether check integrity was maintained. Data in the table might have constraint violations.

Severity: 4 (warning)

System Action: RECOVER processing continues.

User Response: Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for information about resolving the check pending status.

DSNU566I *csect-name* RESTORE OF *obj-type obj-qual.obj-name* FROM DATA SET *data-set-name* COMPLETED, ELAPSED TIME = *hh:mm:ss*

Explanation: This message is issued at the successful completion of the RESTORE phase of the RECOVER utility when the DFSMSdss RESTORE command is issued. The *data-set-name* identifies the DFSMS concurrent copy that was being restored. The elapsed time of the RESTORE is shown in hours, minutes, and seconds.

System Action: RECOVER utility processing continues.

User Response: No action is required.

DSNU567I *csect-name* TABLESPACE=*dbname.tsname* PART NUMBER = *partition number* IS IN REORG PENDING STATE

Explanation: A SYSCOPY record for a range of partitions has been encountered. The RECOVER TABLESPACE utility was executed against an object which was the target of a partition rebalancing. The RECOVER utility will set all of the partitions involved in the partition rebalancing to REORG PENDING for one of the following reasons:

- Recovery of a table space to a point in time prior to the resetting of the REORG PENDING state by the REORG utility.
- Recovery of a table space to currency, when the table space is in REORG PENDING state.

Severity: 4 (warning)

System Action: The RECOVER utility completed successfully.

User Response: Execute REORG with SHRLEVEL NONE on the partitions in REORG PENDING status to rebalance the partitions and to remove the REORG PENDING state.

DSNU568I *csect-name obj-type obj-qual.obj-name* **IS IN INFORMATIONAL COPY PENDING**

Explanation: An image copy of the index is required to establish a new base from which the index can be recovered. This is an advisory state, so the index is available for read or write access.

Severity: 0 (informational)

User Response: Take an image copy of the index.

DSNU569I *csect-name* **RESTORE OF** *obj-type obj-qual.obj-name* **FROM DATA SET** *data-set-name* **FAILED WITH RETURN CODE** *return-code*

Explanation: This message is issued in the RESTORE phase of the RECOVER utility. The DFSMSdss RESTORE command was issued to restore the DFSMS concurrent copy named *data-set-name*. The return code is from DFSMSdss RESTORE.

Severity: 4 (warning)

System Action: The RECOVER utility searches for the next recoverable point. DFSMSdss issues ADR messages to the job output to indicate the reason for the return code.

User Response: You might want to investigate why this DFDSS RESTORE command failed. Collect any console messages. Look up the return code and any ADR messages in the appropriate DFSMSdss manual.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 85,

DSNU570I *csect-name obj-type obj-qual.obj-name* **PARTITION** *part-num* **IS IN INFORMATIONAL COPY PENDING**

Explanation: An image copy of the index partition is required to establish a new base from which the index partition can be recovered. This is an advisory state, so the index is available for read or write access.

Severity: 0 (informational)

User Response: Take an image copy of the index partition or of the entire index, depending on your

backup and recovery procedures.

DSNU571I *csect-name* **ALL** *site* **SYSCOPY RECORDS FOR** *obj-type= obj-qual.obj-name* **PARTITION=***part-num* **HAVE BEEN DELETED**

Explanation: The MODIFY RECOVERY utility deleted all of the SYSCOPY table records for the specified table space or index space partition. Any related SYSLGRNX rows are deleted if DSNUM ALL is specified. The 'part-num' of specified table space or index space is no longer recoverable at the 'site'. The 'site' can be 'LOCALSITE' or 'RECOVERYSITE'.

Severity: 4 (warning)

System Action: Utility processing continues.

System Programmer Response: The 'part-num' of specified table space or index space is no longer recoverable at the 'site' after this message is received. Use the COPY utility to create one or more copies for the 'site' to establish a base for future recovery.

DSNU572I *csect-name* **ALL** *site* **SYSCOPY RECORDS FOR** *obj-type= obj-qual.obj-name* **HAVE BEEN DELETED**

Explanation: The MODIFY RECOVERY utility deleted all of the SYSCOPY table records for the specified table space or index space. Any related SYSLGRNX rows are deleted if DSNUM ALL is specified. The table space or index space is no longer recoverable at the 'site'. The 'site' can be 'LOCALSITE' or 'RECOVERYSITE'.

Severity: 4 (warning)

System Action: Utility processing continues.

System Programmer Response: The table space or index space is no longer recoverable at the 'site' after this message is received. Use the COPY utility to create one or more copies for the 'site' to establish a base for future recovery.

DSNU573I *csect-name* **NO BACKUP COPIES FOUND FOR THIS TABLESPACE OR DATASET**

Explanation: The MODIFY RECOVERY utility was unable to locate any SYSCOPY records older than the specified AGE or prior to the specified DATE. No records have been deleted.

Severity: 4 (warning)

System Action: Processing completes normally.

DSNU575I *csect-name* - **MODIFY COMPLETED SUCCESSFULLY**

Explanation: This message reports the successful completion of the MODIFY utility. The requested cleanup of old SYSIBM.SYSCOPY entries was completed.

Severity: 0 (informational)

System Action: The MODIFY utility completed normally.

DSNU577I *csect-name* **MODIFY HAS NOT DELETED ALL SYSCOPY RECORDS AS REQUESTED.**

Explanation: If MODIFY RECOVERY is invoked with a partition-number (DSNUM), and the table space level recoverable point is older than the user specified DATE or AGE, all SYSCOPY records after the table space level recoverable point cannot be deleted.

Severity: 4 (warning)

System Action: Processing continues normally.

DSNU578I *csect-name* **SYSLGRNX INFORMATION FOR MEMBER** *member-name*

Explanation: In the data sharing environment, the SYSLGRNX records reported with DSNU513 are grouped by the respective member name. Each group member has header message DSNU578 to identify the member. This message precedes DSNU513.

System Action: The RECOVER utility continues with the LOGAPPLY phase.

DSNU579I *csect-name* **RECOVER UTILITY LOG APPLY AT LOGPOINT** *xxx*

Explanation: This message shows the progress of the LOGAPPLY phase of the RECOVER utility. The highest LOGPOINT that was applied is *xxx*. The value of logpoint is RBA in a non data-sharing environment and LRSN in a data sharing environment.

System Action: The LOGAPPLY phase continues normally.

DSNU580I *csect-name* **REPORT UTILITY COMPLETE, ELAPSED TIME=hh/mm/ss**

Explanation: The message is issued at the normal completion of the REPORT utility. The time that elapsed since the beginning of the REPORT utility to its completion was 'hh' hours, 'mm' minutes, and 'ss' seconds.

Severity: 0 (informational)

System Action: This message indicates the normal completion of the REPORT utility. Processing continues

to the next utility statement in the utility job step, if any. If not, the utility job step is normally terminated, and the resources held become available for further processing. The UTILID of the utility job step becomes available for reuse.

DSNU581I *csect-name* **REPORT RECOVERY**
obj-type obj-qual.obj-name

Explanation: This message indicates the beginning of the recovery information report for a table space or index space.

Severity: 0 (informational)

System Action: Utility processing continues.

DSNU582I *csect-name* **REPORT RECOVERY**
obj-type obj-qual.obj-name **SYSCOPY ROWS**

Explanation: This is the header message for the SYSCOPY section of the REPORT RECOVER output. This section displays the SYSCOPY rows for the table space or index space. Whether the information is displayed at the partition level is determined by the DSNUM specification in the REPORT RECOVERY input statement. The fields in the SYSCOPY row are:

- TIMESTAMP
- ICTYPE

The following delimiters may be present around the ICTYPE value: * * - Non image copy syscopy entry <
> - Image copy prior to rebalancing of table space partitions () - Image copy prior to LOG(NO) event. Note that for image copies of indexes, the LOG(NO) event may have occurred on its underlying table space.

- DSNUM
- FILESEQNO
- START_RBA
- SHRLEVEL
- DEVTYPE
- ICBACKUP
- DSNAME
- STYPE
- PIT_RBA
- DSVOLSER
- HIGHDSNUM
- LOWDSNUM

For description of the fields, see SYSIBM.SYSCOPY table in Appendix C of *DB2 SQL Reference*.

Severity: 0 (informational)

DSNU583I *csect-name* **SYSLGRNX ROWS FROM REPORT RECOVERY FOR** *obj-type obj-qual.obj-name*

Explanation: This is the header message for the SYSLGRNX section of the REPORT RECOVERY output. This section displays the SYSLGRNX rows for

the table space, index space, or partition as specified in the REPORT RECOVERY input statement. The fields in the SYSLGRNX row are:

- UCDATE - Modification date
- UCTIME - Modification time
- START RBA - Starting RBA
- STOP RBA - Stopping RBA
- START LRSN - Starting LRSN
- STOP LRSN - Stopping LRSN
- DSNUM - Partition number
- MEMBER - Data sharing member

An invalid SYSLGRNX record is marked with '***' at the end. The invalid SYSLGRNX record cannot be used for recovery because the range is outside recovery. If records are marked with '***', then a DSNU594 message should have been issued prior to this.

A SYSLGRNX record created after the last FULL IMAGE COPY, LOAD REPLACE LOG YES, or REORG LOG YES is marked with '*' at the end.

Severity: 0 (informational)

System Action: Processing continues normally.

DSNU584I *csect-name* **REPORT RECOVERY**
obj-type obj-qual.obj-name **BSDS**
VOLUMES

Explanation: Message for the BSDS VOLUMES section of the REPORT RECOVERY output. This section contains BSDS volumes for the archive log (1 or 2) records associated with the table space or index space specified in the REPORT RECOVERY input statement. The output contains the following information:

START TIME	END TIME	START RBA	END RBA	UNIT	VOLSER	DATA SET NAME
start	end	rba	rba	device	volume	data set name
timestamp	timestamp					

An archive log record created after the last FULL IMAGE COPY, LOAD REPLACE LOG YES, or REORG LOG YES is marked with '*' at the end.

System Action: Processing continues normally

DSNU585I *csect-name* **REPORT RECOVERY**
obj-type obj-qual.obj-name **CURRENT**

Explanation: The message is issued in response to the CURRENT option of REPORT RECOVERY utility. It indicates that only the information since the last recoverable point for the specified table space or index space is reported.

Severity: 0 (informational)

System Action: Normal utility processing continues.

DSNU586I *csect-name* **REPORT RECOVERY**
obj-type obj-qual.obj-name **SUMMARY:**

Explanation: This is the header message for the SUMMARY section of the REPORT RECOVERY utility. All the volumes to be used by the RECOVER utility are summarized.

The volume name is marked with '*' at the end if any archive log record in the volume was created after the last FULL IMAGE COPY, LOAD REPLACE LOG YES, or REORG LOG YES.

System Action: Processing continues normally

DSNU587I *csect-name* **REPORT TABLESPACE SET**
WITH TABLESPACE *dbname.tsname*

Explanation: Header message for the REPORT TABLESPACESET output. The output contains all table spaces, tables, and dependent tables associated with the table space specified in the REPORT TABLESPACESET input statement.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU588I *csect-name* **NO DATA TO BE**
REPORTED

Explanation: The message is issued when no data can be found for a section of the REPORT output.

Severity: 0 (informational)

System Action: Utility processing continues.

DSNU589I *csect-name* **REPORT RECOVERY**
obj-type obj-qual.obj-name **COMPLETE**

Explanation: The message is issued at the normal completion of reporting the RECOVERY information for the table space or index space by the REPORT RECOVERY utility.

Severity: 0 (informational)

System Action: This message indicates the normal completion of the REPORT RECOVERY utility. Processing continues to the next utility statement in the utility job step, if any. If not, the utility job step is normally terminated, and the resources held become available for further processing. The UTILID of the utility job step becomes available for reuse. The output from REPORT RECOVERY is now available for RECOVER utility use.

DSNU590I *csect-name object* **RESOURCE NOT**
AVAILABLE - object-name REASON =
X'reason-code'

Explanation: A required object *object-name* could not be accessed for the reason shown in *reason-code*. The

required object can be a database, table space, or index space. If the object is in a stopped state and has partitions, then the stopped state applies to one or more of the partitions.

Severity: 8 (error) or 4 (warning)

System Action: If the return code is 8, utility processing is terminated. If the return code is 4, utility processing continues to the next request.

User Response: Determine the cause for unavailability. The -DISPLAY DATABASE command can be used to determine the status. After ensuring the object is available, resubmit the job.

DSNU591I *csectname* **AN UNSUCCESSFUL COMPLETION OF A LOG READ, REASON=X'***reason-code*'

Explanation: The log manager subcomponent of DB2 detected an error during a LOG READ of SYSCOPY record for DSNDB06.SYSCOPY, DSNDB01.DBD01 or DSNDB01.SYSUTIL.

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Look up the reason code in Part 4, "Section 4. DB2 Codes," on page 773 of this book for problem determination.

DSNU592I *csect-name* **REPORT RECOVERY INFORMATION FOR DATA SHARING MEMBER** *member-name*

Explanation: The REPORT RECOVERY utility displays this message as the heading for SYSLGRNX and BSDS records or BSDS summary information for each data sharing member. Records for this member follow, if there is data to report.

Severity: 0 (Informational)

System Action: Utility processing continues.

DSNU593I *csect-name* **REPORT RECOVERY ENVIRONMENT INFORMATION: MINIMUM RBA: *rba1* MAXIMUM RBA: *rba2* MIGRATING RBA: *rba3***

Explanation: The REPORT utility issues this message to display recovery environment information used by the RECOVER utility. The maximum and minimum RBAs give the range of possible recovery points on the log before the start of data sharing. The migrating RBA is the RBA at the time of migration from DB2 Version 3 to Version 4. If there is data to report, other messages from the REPORT utility follow to display SYSCOPY, SYSLGRNX and BSDS records.

Severity: 0 (Informational)

System Action: Utility processing continues.

DSNU594I *csect-name* **DB2 ENCOUNTERED SYSLGRNX RECORDS THAT CANNOT BE USED FOR RECOVERY.**

Explanation: The utility found one or more SYSLGRNX records that cannot be used for recovery because the range is outside recovery. Invalid SYSLGRNX records are marked with '***' at the end of the record under message DSNU583I.

Severity: 4 (REPORT - warning) or 8 (RECOVER - error)

System Action: REPORT utility processing continues. RECOVER utility terminates.

System Programmer Response: Run the RECOVER utility with the TOCOPY option.

DSNU595I *csect-name* **ERROR IN GETTING THE HIGHEST MEMBER ID IN DATA SHARING.**

Explanation: The REPORT utility could not find a valid highest member ID. The highest member is the last member to join a data sharing group. This message is issued only in a data sharing environment.

Severity: 8 (error)

System Action: The REPORT utility abends.

System Programmer Response: This might be an internal DB2 problem. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU596I *csect-name* **ERROR IN GETTING THE MEMBER NAME FOR MEMBER ID**

Explanation: The REPORT utility could not find a valid member name for the member ID, or the member ID supplied is invalid. This message is issued only in a data sharing environment.

Severity: 8 (error)

System Action: The REPORT utility abends.

System Programmer Response: This might be a DB2 internal problem. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU597I *csect-name* **INVALID SYSLGRNX INFORMATION FROM REPORT RECOVERY**

Explanation: This is the header message for the invalid SYSLGRNX records section of the REPORT RECOVERY output. This section lists SYSLGRNX records containing information that is invalid for recovery purposes.

Severity: 0 (Informational)

System Action: Utility processing continues.

User Response: Examine the invalid SYSLGRNX records with a zero member ID which were generated before enabling data sharing. The MODIFY utility can be used to delete the invalid SYSLGRNX records.

DSNU599I *csect-name obj-type obj-qual.obj-name*
**HAS BEEN RECOVERED TO A
 CONSISTENT POINT IN TIME WITH
 obj-type obj-qual.obj-name**

Explanation: This message is issued when an index and its underlying table space have been recovered to a consistent point in time. A consistent point in time is a common QUIESCE point or a common SHRLEVEL REFERENCE copy set (objects were copied in the same list with SHRLEVEL REFERENCE specified). The index is available for read and write access when the recover completes.

Severity: 0 (informational)

System Action: Recover processing continues.

DSNU600I *csect-name INDEX creator.index-name*
POINTS TO A DIFFERENT DATABASE.

Explanation: A specified index does not point to a table in the database selected. For a RUNSTATS Format 1 invocation, the database is the one specified (or defaulted) in the TABLESPACE parameter. For a RUNSTATS Format 2 invocation, the database is the one which contains the first index in the index-name list.

Severity: 8 (error)

System Action: All remaining RUNSTATS invocation parameters are validated and the executing utility job terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained in the system; therefore, it cannot be restarted.

User Response: Ensure that all indexes in the list point to the same database and resubmit the RUNSTATS job.

Problem Determination: Refer to catalog table SYSIBM.SYSINDEXES to determine the table upon which the index is based. This table must be in the database and table space targeted by the RUNSTATS utility.

DSNU601I *csect-name INDEX creator.index-name*
**POINTS TO A DIFFERENT
 TABLESPACE.**

Explanation: A specified index does not point to a table in the table space selected. The table space is either the one specified in the TABLESPACE parameter or the one which contains the table pointed to by the first specified index.

Severity: 8 (error)

System Action: All remaining RUNSTATS invocation parameters are validated and the executing utility job terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained in the system; therefore, it cannot be restarted.

User Response: Ensure that all indexes in the list point to tables in the targeted table space and resubmit the RUNSTATS job.

Problem Determination: Refer to catalog table SYSIBM.SYSINDEXES to determine the table upon which the index is based. Using the table-name found in SYSIBM.SYSINDEXES, refer to catalog table SYSIBM.SYSTABLES to determine the containing table space.

DSNU602I *csect-name* **STATISTICS ARE NOT
 COLLECTED FOR NONPARTITIONED
 INDEX** *creator.index-name*

Explanation: For a LOAD or REORG utility when a nonpartitioned index exists, inline statistics performs a complete index scan. Statistics are collected for the entire nonpartitioned index. This warning message will be issued if the PART keyword & STATISTICS keyword are specified for LOAD/REORG utilities. This is because statistics are not collected on a logical part basis.

System Action: This message will be issued for each nonpartitioned index, when INDEX ALL is specified.

Severity: 4 (warning)

User Response: Run the runstats utility on the object.

DSNU603I *csect-name* - **OBJECT=object-name HAS
 AN INCOMPLETE DEFINITION**

Explanation: The identified object (TABLE or TABLE SPACE) does not have a complete definition. This can be caused by one of these errors:

- Not defining any tables in the table space (RC=4).
- Not creating the accompanying partitioned index if the table space is partitioned (RC=8).

Severity: 8 (error) or 4 (warning)

System Action: If the return code is 8, utility processing terminates. If the return code is 4, utility processing continues to the next request.

User Response: Complete the table space definition by creating at least one table in the table space, or create the accompanying partitioned index if the table space is partitioned.

Problem Determination: Issue an SQL SELECT statement on the catalog to determine if the tables or a partitioned index was not created for the table space.

DSNU604I *csect-name* object IS EMPTY

Explanation: The object currently to be scanned by the RUNSTATS utility contains no records. The 'object' can be TABLESPACE or INDEXSPACE.

Severity: 0 (informational)

System Action: The object currently to be scanned is recorded in the catalog as empty. The statistics for the object are updated and RUNSTATS continues to the next object, if there is one.

DSNU605I *csect-name* ERROR OCCURRED IN ACCESSING TABLESPACE
database-name.tablespace-name

Explanation: A previous error makes it impossible for RUNSTATS to scan TABLESPACE 'creator.tbspname'.

Severity: 8 (error)

System Action: The executing utility job step terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained in the system; therefore, it cannot be restarted.

User Response: Examine prior error messages for error identification. If the error can be corrected, resubmit the RUNSTATS utility in a new utility job step. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Prior messages identify this error. See the information about these messages for additional problem determination.

DSNU606I *csect-name* USER NOT AUTHORIZED TO ACCESS TABLESPACE
database-name.tablespace-name

Explanation: This user is not authorized to execute the RUNSTATS utility against TABLESPACE 'creator.tbspname'.

Severity: 8 (error)

System Action: The executing utility job step terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained in the system; therefore, it cannot be restarted.

User Response: Contact your system administrator to obtain the proper authority, or have another user with the required authority execute the utility for you.

DSNU607I *csect-name* ERROR OCCURRED ACCESSING INDEXSPACE
creator.index-name

Explanation: A previous error makes it impossible for RUNSTATS to scan INDEXSPACE 'creator.indexspacename'.

Severity: 8 (error)

System Action: The executing utility job step terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained in the system; therefore, it cannot be restarted.

User Response: Examine prior error messages for error identification. If the error can be corrected, resubmit the RUNSTATS utility in a new utility job step.

Problem Determination: Prior messages identify this error. See the documentation for these messages in this manual for additional problem determination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU608I *csect-name* USER NOT AUTHORIZED TO ACCESS INDEXSPACE
creator.index-name

Explanation: This user is not authorized to execute the RUNSTATS utility against INDEXSPACE 'creator.indexspacename'.

Severity: 8 (error)

System Action: The executing utility job step terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained in the system; therefore, it cannot be restarted.

User Response: Contact your system administrator to obtain the proper authority, or have another user with the required authority execute the utility for you.

DSNU609I *csect-name* TABLE *table-name* IS IN A DIFFERENT TABLESPACE

Explanation: A table listed in the table name list of the RUNSTATS TABLE keyword was not found in the specified table space.

Severity: 8 (error)

System Action: The executing utility job step terminates. Work performed by previous utilities in the job step remains in effect. Subsequent utility control statements are flushed. No record of the utility job step is retained by the system; therefore it cannot be restarted.

User Response: Ensure that all tables in the list are in the specified table space and resubmit the utility.

Problem Determination: Refer to the catalog table SYSIBM.SYSTABLES to determine the table space in which the table is located.

DSNU610I *csect-name catalog-table-name*
CATALOG UPDATE FOR *object-name*
SUCCESSFUL

Explanation: This message indicates that the updating of the statistics columns in the CATALOG TABLE 'catalog-table-name' was successful.

Severity: 0 (informational)

System Action: Processing continues with the next catalog table.

DSNU611I *csect-name COLUMN column-name* **NOT FOUND FOR TABLE** *creator.table-name*

Explanation: A column name, given as an operand of the COLUMN keyword, was not found in the specified table.

Severity: 8 (error)

System Action: Validation of the utility invocation statement is completed and the executing utility job step is terminated.

User Response: Ensure that the column name given in the message is correct for the table specified.

Problem Determination: Check that the column name specified in the utility invocation statement is identical to that found in the SYSIBM.SYSCOLUMNS catalog table. Correct any errors and reissue the utility job.

DSNU612I *csect-name SYSTABLESPACE*
CATALOG STATISTICS FOR
tspc-name NACTIVE = nactive
NACTIVEF = nactive

Explanation: The RUNSTATS utility issues this message to report the statistics collected for table space *tspc-name*.

nactive

The number of active pages in the table space

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: RUNSTATS processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for information about RUNSTATS statistics.

DSNU613I *csect-name SYSTABLEPART CATALOG*
STATISTICS FOR *table-space-name*
PARTITION *part-num*

:

CARD	= cardinality
CARDF	= cardinality
NEARINDREF	= nearindref
FARINDREF	= farindref
PERCACTIVE	= peractive
PERCDROP	= percdrop
PAGESAVE	= pagesave
SPACE	= space
SPACEF	= space
PQTY	= pqty
SQTY	= sqty
DSNUM	= dsnum
EXTENTS	= extents

Explanation: The RUNSTATS utility issues this message to report the statistics collected. If the *part-num* equals 0, the statistics apply to the entire table space. If the *part-num* is not 0, the statistics apply to the specified partition of the table space.

cardinality

The number of rows in the reported partition number

nearindref

The number of rows that were relocated near their original page

farindref

The number of rows that were relocated far from their original page

peractive

The percentage of space occupied by actual data from active tables

percdrop

The percentage of space occupied by rows of data from dropped tables

pagesave

The percentage of pages saved in the table space or partition by using data compression

space

The space currently allocated for all extents, measured in kilobytes.

pqty

The primary space allocation for the dataset in 4K blocks.

sqty

The secondary space allocation for the dataset in 4K blocks.

dsnum

The number of data sets.

extents

The number of extents for the last data set of the object.

This message is routed to SYSPRINT.

DSNU614I • DSNU616I

Severity: 0 (informational)

System Action: RUNSTATS processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for information about RUNSTATS statistics.

DSNU614I *csect-name* SYSTABLES CATALOG STATISTICS FOR *table-name*

:

CARD	= cardinality
CARDF	= cardinality
NPAGES	= npages
NPAGESF	= npages
PCTPAGES	= pctpages
PCTROWCOMP	= pctrowcomp
AVGROWLEN	= avgrowlen
SPACEF	= space

Explanation: The RUNSTATS utility issues this message to report the statistics collected for the specified table. The statistics follow:

cardinality

The number of rows in the table.

For a LARGE table space, the value of CARD is set to -1.

npages

The number of pages on which rows of the table appear.

pctpages

The percentage of total pages of the table space that contain rows from this table.

pctrowcomp

The percentage of rows compressed within the total number of active rows in the table.

avgrowlen

The total number of bytes divided by the number of rows.

space The space currently allocated for all extents, measured in kilobytes.

RUNSTATS uses floating point fields to report these statistics.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: RUNSTATS processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for a discussion of RUNSTATS statistics.

DSNU615I *csect-name* SYSCOLUMNS CATALOG STATISTICS FOR *column-name*

:

COLCARD	= cardinality	
COLCARDF	= cardinalityHIGH2KEY	= high2key
LOW2KEY	= low2key	

Explanation: The RUNSTATS utility issues this message to report the statistics collected for column '*column-name*'. Message DSNU619I is issued to identify the table.

cardinality

The number of distinct values in the column

high2key

The second highest value of the column

low2key

The second lowest value of the column

If the values for 'high2key' and 'low2key' are null, the invoker of RUNSTATS is not authorized to read the table.

For a LARGE table space, the value of COLCARD is set to -1.

RUNSTATS uses floating point fields to report these statistics.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU616I *csect-name* SYSCOLDIST CATALOG STATISTICS FOR *column-name*, *column-name*, *column-name* ...

: CARDINALITY = cardinality

FREQUENCY	COLVALUE
frequency	X "hex_string"
frequency	X "hex_string"
...	...
frequency	X "hex_string"

Explanation: The RUNSTATS utility issues this message to report the statistics collected for the indexed column '*column-name*'. If more than one column is listed, then the statistics collected and the column values reported represent the concatenation of those columns.

The value for CARDINALITY is the number of distinct

values for the listed columns. This statistic appears only if the KEYCARD option was specified.

The values under FREQUENCY are the same as those that are inserted into the DB2 catalog. Consider each 'frequency' as a four-digit number with an implied decimal point two places to the left of the final digit. The resulting number is the percentage of total rows in the table that contain a particular value for the named index columns.

Frequency is associated with the occurrence of a single value which is listed under COLVALUE.

Frequencies for the most frequent values are collected by default, or if the FREQVAL option is specified and given a COUNT value greater than zero. If the default is taken, then the ten most frequently occurring values are reported in descending order of frequency.

If fewer than ten values appear, then there are fewer than ten distinct values in the index.

If no values appear, then the values are uniformly distributed.

If frequencies appear but column values do not, then the invoker of RUNSTATS is not authorized to read the table. Message DSNU619I is issued to identify the table.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU617I *csect-name* **SYSINDEXES CATALOG**
STATISTICS FOR *index-name*

:

CLUSTERED	= clustered
CLUSTERRATIO	= clusterratio
CLUSTERRATIOF	= clusterratio
FIRSTKEYCARD	= firstkeycard
FIRSTKEYCARDF	= firstkeycard
NLEAF	= nleaf
NLEVELS	= nlevels
SPACEF	= space

Explanation: The RUNSTATS utility issues this message to report the statistics collected for index 'index-name'.

clustered

Whether the table is actually clustered by this index (YES or NO)

cluster-ratio

The percentage of data rows that are in clustering order for this index

float-cluster-ratio

A number between 0 and 1 that when multiplied by 100 gives the percentage of data rows in the partition that are in clustering order for this index

first-key

The number of distinct values of the first key column

full-key

The number of distinct values of the key

nleaf

The number of active leaf pages in the index

nlevels

The number of levels in the index tree

space

The space currently allocated for all extents, measured in kilobytes.

For a LARGE table space, the values of FIRSTKEYCARD and FULLKEYCARD are set to -1. RUNSTATS uses floating point fields to report these statistics.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU618I *csect-name* **SYSINDEXPART CATALOG**
STATISTICS FOR *index-name*
PARTITION *part-num*

:

CARD	= cardinality
CARDF	= cardinality
NEAROFFPOS	= near-off
NEAROFFPOSF	= near-off
FAROFFPOS	= far-off
FAROFFPOSF	= far-off
LEAFDIST	= leafdist
SPACEF	= space
DSNUM	= dsnum
EXTENTS	= extents
LEAFNEAR	= leafnear
LEAFFAR	= leaffar
PSEUDO_DEL_ENTRIES	= pseudo_del_entries

Explanation: The RUNSTATS utility issues this message to report the statistics collected for index 'index-name'. If 'part-num' equals 0, the statistics apply to the entire index. If 'part-num' is not 0, the statistics apply to the specified partition of the index.

cardinality

The number of rows in the partition or index.

near-off

The number of rows pointed to that are near but not at their optimal positions.

far-off

The number of rows pointed to that are far from their optimal positions.

leafdist

100 times the average distance in page IDs between successive leaf pages during a sequential access of the index.

space

The space currently allocated for all extents, measured in kilobytes.

dsnum

The number of data sets.

extents

The number of extents for the last data set of the object.

leafnear

The number of leaf pages physically near the previous leaf page for successive active leaf pages.

leaffar

The number of leaf pages located physically far away from the previous leaf pages for successive active leaf pages accessed in an index scan.

pseudo_del_entries

The number of entries that are logically deleted.

For a LARGE table space, the values of CARD, NEAROFFPOS, and FAROFFPOS are set to -1. RUNSTATS uses floating point fields to report these statistics.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU619I *csect-name* - **USER *auth_id* DOES NOT HAVE PRIVILEGE ON TABLE *table_name***

Explanation: The RUNSTATS utility issues this message to report that authorization ID '*auth_id*' does not have privilege on table '*table_name*'. Some column values reported by messages DSNU615I, DSNU616I, DSNU625I, and DSNU626I contain the null value.

Severity: 0 (informational)

System Action: RUNSTATS processing continues.

User Response: To obtain the key values, the user must be granted authority on the table. The RUNSTATS utility can be rerun with the report option.

DSNU620I *csect-name* **RUNSTATS CATALOG STATISTICS STATTIME = *timestamp***

Explanation: The RUNSTATS utility issues this message to report the timestamp value when statistics were collected. The value '*timestamp*' is common to all of the statistic tables that were updated.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for a description of the RUNSTATS statistics.

DSNU621I *csect-name* **RUNSTATS COMMIT/ROLLBACK FAILED**

Explanation: The RUNSTATS utility updated the catalog with gathered statistics and has tried either to commit those changes or to perform rollback processing to remove them following an error. The commit or rollback failed.

Severity: 8 (error)

System Action: RUNSTATS processing is terminated. Subsequent utility control statements in the utility job step are executed.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

DSNU622I *csect-name* **CATALOG ACCESS FOR *object-name* NOT SUCCESSFUL, REASON=*reason-code***

Explanation: Due to catalog access error for object *object-name* and reason code *reason-code*, the catalog update, insert, or select was not successful for the object when inline statistics was employed.

Severity: 4 (warning)

User Response: Run the RUNSTATS utility against the object.

DSNU623I *csect-name - catalog-table-name* **CATALOG NOT UPDATED WITH AGGREGATE STATISTICS FOR *object-name* BECAUSE SOME PARTITIONS HAVE NO VALID STATISTICS**

Explanation: Aggregate statistics were requested, but partition statistics do not exist for every partition. Without partition statistics, the aggregate statistics cannot be calculated. The statistics for '*object-name*' are not updated in the specified DB2 catalog table.

One possible cause for this message is that someone

altered the length of a varying-length column and then tried to run RUNSTATS with the PART option.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Run the RUNSTATS utility to collect statistics for:

- The entire table space, table, column or index, or
- Every partition.

DSNU624I *csect-name* **SYSTABSTATS CATALOG STATISTICS FOR** *table-name*
PARTITION *part-num*

:

CARD or CARDF = cardinality
NPAGES = npages
PCTPAGES = pctpages
NACTIVE = nactive
PCTROWCOMP = pctrowcomp

Explanation: The RUNSTATS utility issues this message to report the statistics collected for the specified partition of the table space containing the table. The statistics follow:

cardinality

The number of rows in the table space partition

npages

The number of pages on which rows of the table space partition appear

pctpages

The percentage of total pages of the table space partition that contain rows from this table

nactive

The number of active pages in the table space partition

pctrowcomp

The percentage of rows compressed within the total number of active rows in the partition

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: RUNSTATS processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for information about RUNSTATS statistics.

DSNU625I *csect-name* **SYSCOLSTATS CATALOG STATISTICS FOR** *column-name*
PARTITION *part-num*

:

COLCARD = cardinality
HIGHKEY = highkey

HIGH2KEY = high2key
LOW2KEY = low2key
LOWKEY = lowkey

Explanation: The RUNSTATS utility issues this message to report the statistics collected for column 'column-name' partition 'part-num' of a table. Message DSNU619I is issued to identify the table.

cardinality

The number of distinct values in the column for the partition

highkey

The highest value of the column in the partition

high2key

The second highest value of the column in the partition

low2key

The second lowest value of the column in the partition

lowkey

The lowest value of the column in the partition

If the values for 'highkey', 'high2key', 'low2key', and 'lowkey' are null, the invoker of RUNSTATS is not authorized to read the table.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU626I *csect-name* **SYSCOLDISTSTATS CATALOG STATISTICS FOR** *column-name, column-name, column-name ...*
PARTITION *part-num*

: CARDINALITY = cardinality

FREQUENCY	COLVALUE
frequency	X "hex_string"
frequency	X "hex_string"
...	...
frequency	X "hex_string"

Explanation: The RUNSTATS utility issues this message to report the statistics collected for the indexed column 'column-name' partition 'part-num'. If more than one column is listed, then the statistics collected and the column values reported represent the concatenation of those columns.

The value for CARDINALITY is the number of distinct values for the listed columns. This statistic appears only if the KEYCARD option was specified.

The values under FREQUENCY are the same as those

that are inserted into the DB2 catalog. Consider each 'frequency' as a four-digit number with an implied decimal point two places to the left of the final digit. The resulting number is the percentage of total rows in the table that contain a particular value for the named index columns.

Frequency is associated with the occurrence of a single value which is listed under COLVALUE.

Frequencies for the most frequent values are collected by default, or if the FREQVAL option is specified and given a COUNT value greater than zero. If the default is taken, then the ten most frequently occurring values, plus the lowest and highest values in the partition (if not already included in the ten greatest frequencies), are reported in descending order of frequency.

If fewer than ten values appear, then there are fewer than ten distinct values in the index.

If no values appear, then the values are uniformly distributed.

If frequencies appear but column values do not, then the invoker of RUNSTATS is not authorized to read the table. Message DSNU619I is issued to identify the table.

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU627I *csect-name* **SYSINDEXSTATS CATALOG STATISTICS FOR** *index-name* **PARTITION** *part-num*

:

CLUSTERRATIO or CLUSTERRATIOF = cluster-ratio
 FIRSTKEYCARD or FIRSTKEYCARDF = first-key
 FULLKEYCARD or FULLKEYCARDF = full-key
 NLEAF = nleaf
 NLEVELS = nlevels
 KEYCOUNT or KEYCOUNTF = keycount

Explanation: The RUNSTATS utility issues this message to report the statistics collected for partition *part-num* of index *index-name*.

cluster-ratio

The percentage of data rows in the partition that are in clustering order for this index

first-key

The number of distinct values of the first key column in the partition

full-key

The number of distinct values of the key in the partition

nleaf The number of active leaf pages in the index partition

nlevels

The number of levels in the index tree in the partition

keycount

The number of index keys (entries) in the partition

This message is routed to SYSPRINT.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to *DB2 Utility Guide and Reference* for a description of RUNSTATS statistics.

DSNU628I *csect-name* **STATISTICS WILL NO LONGER BE COLLECTED ON RESTART**

Explanation: Since inline statistics is not restartable, Statistics will not be collected on restarting the LOAD/REORG utility. The error message will be issued on restart of a LOAD/REORG utility with STATISTICS keyword specified.

Severity: 4 (warning)

User Response: Run the runstats utility on the object after the utility execution.

DSNU629I *csect-name* **INLINE STATISTICS IS NOT SUPPORTED FOR** *object-name*

Explanation: The collection of inline statistics is not supported on the following directory and catalog tablespaces : DSNDB06.SYSDBASE, DSNDB06.SYSDBAUT, DSNDB06.SYSGROUP, DSNDB06.SYSPLAN, DSNDB06.SYSVIEWS, DSNDB06.SYSSTATS, and DSNDB01.DBD01

This error message will be issued on execution of a REORG or REBUILD INDEX utility on a catalog object when the STATISTICS keyword is specified.

Severity: 4 (warning)

User Response: Remove the keyword STATISTICS from the utility job statement and rerun the utility. Run the RUNSTATS utility afterwards.

DSNU630I *csect-name* - **SYSLOBSTATS CATALOG STATISTICS FOR** *LOB table space* **AVGSIZE =** *avgspace* **FREESPACE =** *freespace* **ORGRATIO =** *orgratio*

Explanation: The RUNSTATS utility issues this message to report statistics collected for the LOB table space.

AVGSIZE

Average size of a LOB in the LOB table space.

FREESPACE

Amount of free space in the LOB table space.

ORGRATIO

The ratio of organization in the LOB table space. A value of 1 indicates perfect organization of the LOB table space. The greater the value exceeds 1, the more disorganized the LOB table space.

System Action: RUNSTATS processing continues.

DSNU631I *csect-name - catalog-table-name*
**CATALOG NOT UPDATED WITH
 AGGREGATE STATISTICS FOR
 object-name BECAUSE ERROR FROM
 SORT COMPONENT RC=*n***

Explanation: The aggregate statistics cannot be calculated because of an error from the SORT routine. An MVS sort returned a non-zero return code *n*.

The statistics for *object-name* are not updated in the DB2 catalog table that was specified.

Severity: 4 (warning)

System Action: Processing continues, but the statistics for *object-name* are not updated in the DB2 catalog table that was specified.

User Response: Determine the cause of the error from the SORT routine. Run the RUNSTATS utility to collect statistics for:

- The entire tablespace, table, column, or index, or
- Every partition

DSNU638I *csect - UTILITY NOT ALLOWED TO
 RUN ON TABLESPACE = tttttttt IN
 ROSHARE READ DATABASE =
 dddddddd*

Explanation: An attempt to execute STOSPACE utility on a table space defined in a ROSHARE READ database failed. The STOSPACE utility is only allowed to execute in a ROSHARE OWNER or a nonshared database.

Severity: 4 (warning)

System Action: Processing continues to the next table space or index space in the storage group, if any.

User Response: Resubmit the utility job on the system in which the database was defined with the ROSHARE OWNER attribute.

DSNU639I *csect - UTILITY NOT ALLOWED TO
 RUN ON INDEX SPACE = iiiiitii IN
 ROSHARE READ DATABASE =
 dddddddd*

Explanation: An attempt to execute the STOSPACE utility on an index space defined in a ROSHARE READ

database failed. The STOSPACE utility is only allowed to execute in a ROSHARE OWNER or nonshared database.

Severity: 4 (warning)

System Action: Processing continues to the next table space or index space in the storage group, if any.

User Response: Resubmit the utility job on the system in which the database was defined with the ROSHARE OWNER attribute.

DSNU640I *csect-name DATA SET= nnn OF
 TABLESPACE= tttttttt IN DATABASE=
 dddddddd HAS BEEN MIGRATED BY
 HSM*

Explanation: The STOSPACE utility has found that a DB2 data set has been migrated by the Data Facility Hierarchical Storage Manager. The amount of storage space used cannot be determined for DATA SET 'nnn' of TABLESPACE 'ttttttt' in DATABASE 'ddddddd'. The space allocation information in the catalog will not include the storage used by the migrated data set.

Severity: 0 (informational)

System Action: Processing continues to the next data set in the storage group, if any.

System Programmer Response: If required, the data set may be recalled using HSM, and the STOSPACE utility may be run again.

DSNU641I *csect-name DATA SET= nnn OF
 INDEXSPACE= iiiiitii IN DATABASE=
 dddddddd HAS BEEN MIGRATED BY
 HSM*

Explanation: The STOSPACE utility has found that a DB2 data set has been migrated by the Data Facility Hierarchical Storage Manager. The amount of storage space used cannot be determined for DATA SET 'nnn' of INDEXSPACE 'iiiiitii' in DATABASE 'ddddddd'. The space allocation information in the catalog will not include the storage used by the migrated data set.

Severity: 0 (informational)

System Action: Processing continues to the next data set in the storage group, if any.

System Programmer Response: If required, the data set may be recalled using HSM, and the STOSPACE utility may be run again.

DSNU642I *csect-name UNABLE TO ACCESS DBD
 FOR DATABASE = dddddddd,
 TABLESPACE = tttttttt*

Explanation: A database descriptor control block could not be accessed by the STOSPACE utility. Information in the DBD is required before space allocation data can be obtained from the appropriate

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ICF catalog. Storage space used by table space 'tttttt' in database 'ddddddd' cannot be determined.

Severity: 4 (warning)

System Action: Processing continues with the next storage group.

User Response: Determine the cause for unavailability. The database may be stopped or the DBD may be marked as invalid. The -DISPLAY DATABASE command can be used to determine the status.

System Programmer Response: Determine if the reason for the DBD unavailability may require system corrective action.

Problem Determination: A DSNT501I message may have been sent to the operator console. If so, see the problem determination section for message DSNT501I in the Chapter 18, "DSNT... Messages," on page 417.

DSNU643I *csect-name* **UNABLE TO ACCESS DBD FOR DATABASE = ddddddd, INDEXSPACE = tttttt**

Explanation: A database descriptor control block could not be accessed by the STOSPACE utility. Information in the DBD is required before space allocation data can be obtained from the appropriate ICF catalog. Storage space used by index space 'tttttt' in database 'ddddddd' cannot be determined.

Severity: 4 (warning)

System Action: Processing continues with the next storage group.

User Response: Determine the cause for unavailability. The database may be stopped or the DBD may be marked as invalid. The -DISPLAY DATABASE command can be used to determine the status.

System Programmer Response: Determine if the reason for the DBD unavailability may require system corrective action.

Problem Determination: A DSNT501I message may have been sent to the operator console. If so, see the problem determination section for message DSNT501I in the Chapter 18, "DSNT... Messages," on page 417 section.

DSNU644I *csect-name* **USER user-name NOT AUTHORIZED FOR STOSPACE UTILITY**

Explanation: Utility processing for the user indicated on the job statement failed, because the user is not authorized to execute the STOSPACE utility.

Severity: 8 (error)

System Action: Utility processing is terminated without invoking the requested utility or utilities.

User Response: Contact the systems programmer for assistance with your security classification.

System Programmer Response: If the USER specified on the job statement is incorrect, correct it, and resubmit the job. To run the STOSPACE utility, the user must either have SYSADM authority or have been granted the STOSPACE privilege. Use the SQL GRANT command to give the user the desired authority.

DSNU645I *csect-name* **NO STORAGE GROUPS NAME FOUND**

Explanation: You requested the STOSPACE utility to report on all storage groups, but no storage group was found.

Severity: 4 (warning)

This condition does not prevent subsequent processing.

System Action: This message indicates completion of the STOSPACE utility. Processing continues to the next utility statement in the utility job step, if any. If not, the utility job step is normally terminated. Resources are released to their prior availability state. The UTILID of the utility job step becomes available for reuse.

User Response: This message indicates that there are no storage groups defined. Consult the system programmer to determine the reason for this condition.

System Programmer Response: This message indicates either that no storage groups were defined by the installation process (or by subsequent SQL procedures) or they have all been dropped. If this is an error, the required storage groups must be re-created with the CREATE STOGROUP SQL statement.

DSNU646I *csect-name* **STORAGE GROUP NAME nnnnnnnn NOT FOUND**

Explanation: This message is issued by STOSPACE when one of the requested storage groups is not found.

The following circumstances may exist:

1. When an inconsistency occurs between SYSIBM.SYSSTOGROUP at the beginning of STOSPACE execution and SYSIBM.SYSSTOGROUP during or at the end of processing. The inconsistency may be due to a storage group being dropped during the processing of STOSPACE utility.
2. The storage group name is misspelled.

Severity: 4 (warning)

System Action: Processing proceeds normally to the next storage group if any.

User Response: Verify the existence or spelling of the storage group names by referring to SYSIBM.SYSSTOGROUP. Submit another request with the correct storage group designated.

DSNU647I *csect-name* **UNAVAILABLE REASON X**
reason-code **UNAVAILABLE TYPE X**
type-code, TABLESPACE NAME=
table-space-name **NOT FOUND**

Explanation: The indicated table space was not available for processing by the STOSPACE utility. The reason for its unavailability is given in 'reason-code'. The type of unavailability is given in 'type-code'.

This message may be issued when an inconsistency between SYSIBM.SYSSTABLESPACE and SYSIBM.SYSTABLEPART has been detected. The inconsistency may be due to a table space being dropped during the processing of the STOSPACE utility.

Severity: 4 (warning)

System Action: Processing continues to the next table space in the storage group, if any.

User Response: Use the 'reason-code' and 'type-code' to determine why the resource was unavailable. When the problem has been resolved, resubmit the STOSPACE request.

System Programmer Response: Determine if the 'reason-code' and 'type-code' require system corrective action.

Problem Determination: See the Problem Determination section for message DSNT500I on page 468.

DSNU648I *csect-name* **UNAVAILABLE REASON X**
reason code, UNAVAILABLE TYPE X
type-code, INDEX NAME=index-name
NOT FOUND

Explanation: The indicated index was not available for processing by the STOSPACE utility. The reason for its unavailability is given in 'reason-code'. The type of unavailability is given in 'type-code'.

This message may be issued when an inconsistency between SYSIBM.SYSINDEXES and SYSIBM.SYSINDEXPART has been detected. The inconsistency may be due to an index being dropped during the processing of the STOSPACE utility.

Severity: 4 (warning)

System Action: Processing continues to the next index in the storage group, if any.

User Response: Use the 'reason-code' and 'type-code' to determine why the resource was unavailable. When the problem has been resolved, resubmit the STOSPACE request.

System Programmer Response: Determine if the 'reason-code' and 'type-code' require system corrective action.

Problem Determination: See the Problem

Determination section for message DSNT500I on page 468.

DSNU650I *csect-name control-statement-text*

Explanation: Each control statement is returned to the invoker as a part of the normal output. If an error occurred while processing the statement, a separate error message follows this message.

Severity: 0 (informational)

System Action: The processing of the utility request continues normally.

DSNU651I *csect-name* **SET NOCOPYPEND**
OPERATION SUCCESSFUL

Explanation: This message reports the successful completion of the REPAIR SET TABLESPACE NOCOPYPEND utility operation. The COPY PENDING restriction has been removed from the specified table space.

Severity: 0 (informational)

System Action: The REPAIR SET statement has completed normally.

DSNU652I *csect-name* **VERIFY OPERATION**
SUCCESSFUL

Explanation: This message is issued during REPAIR utility processing in response to a VERIFY control statement. It indicates the verification requested was successful, permitting a subsequent REPLACE request to take effect.

Severity: 0 (informational)

System Action: The requested verification was successful. If this is the only verification required for the subsequent REPLACE control statement, the REPLACE control statement takes effect. If there are other verification control statements, they must also complete successfully before the subsequent REPLACE control statement takes effect.

DSNU653I *csect-name* **REPLACE OPERATION AT**
OFFSET *hex-data* WITH DATA *hex-data*
FAILED. ATTEMPTED TO REPLACE
CRITICAL NON-DATA INFORMATION
ON THE PAGE *page-num* WITH
INCORRECT INFORMATION.

Explanation: The REPAIR utility job with the LOG YES option was unable to replace certain critical, nondata information in the page for one of these reasons:

- Some critical information on any page at the indicated offset cannot be replaced by this method.

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- The page is a header page and some of the information at the indicated offset cannot be replaced by this method.
- The information can be replaced only by using the LOG NO option.

Severity: 8 (error)

System Action: REPAIR resumes executing at the next LOCATE statement. Later control statements in the same LOCATE block are not executed.

User Response: Correct the REPAIR control statements and resubmit the request in a new utility job step.

User Response: Check the OFFSET option on the REPLACE statement to be sure it does not cause critical information to be replaced. If the replacement is intentional, use the LOG NO option.

DSNU654I *csect-name* VERIFY OPERATION FAILED, DATA IS *hex-data*

Explanation: The verify operation requested on the control statement failed. The actual data is given as 'hex-data'.

Severity: 4 (warning)

System Action: All REPAIR REPLACE actions subject to the current LOCATE scope are ignored. Processing continues at the next LOCATE request, if any.

User Response: Determine why the data (as reported in the message) does not match the expectations of VERIFY option. Make the appropriate correction, and resubmit the REPAIR request in a new utility job step.

Problem Determination: The REPAIR DUMP option can help you determine the correct verification data. Refer to *DB2 Utility Guide and Reference* for REPAIR processing constraints.

DSNU655I *csect-name* DELETE OPERATION SUCCESSFUL

Explanation: This message is issued during the REPAIR utility in response to a DELETE control statement.

Severity: 0 (informational)

System Action: The data record specified on the previous LOCATE statement and all of its related INDEX entries have been deleted from the system. Processing continues.

DSNU656I *csect-name* REPLACE OPERATION SUCCESSFUL, DATA WAS *hex-data*

Explanation: This message is issued by the REPAIR utility in response to a REPLACE control statement request. The message indicates that replacement of the data occurred and that the replaced data had the

indicated hexadecimal value ('hex-data').

Severity: 0 (informational)

System Action: The REPAIR utility located the indicated record, performed all requested verifications, and replaced the data in the record at the indicated offset with the new data as defined by the REPLACE control statement.

System Programmer Response: If a changed record is recovered before an image copy is made, and the REPAIR utility was run with LOG NO, the repair must be reapplied. If the REPAIR utility was run with LOG YES, no image copy is required before recovering the data after the repair.

DSNU657I *csect-name* REPLACE RESET OPERATION SUCCESSFUL

Explanation: This message is issued by the REPAIR utility in response to a REPLACE RESET control statement request. The message indicates that the broken page indicator has been reset.

Severity: 0 (informational)

System Action: The REPAIR utility has reset the broken page indicator for the specified page. Although the reset indicator has been committed, it has not been logged. If the page is recovered before an image copy is made, the REPAIR RESET must be reapplied.

However, to make the repair persist across subsequent RECOVER operations, an image copy should be taken subsequent to the completion of the REPAIR utility.

DSNU658I *csect-name* MULTIPLE RECORDS FOUND WITH SPECIFIED KEY

Explanation: The specified key is not unique. Several DSNU660I messages, giving possible RID values for this KEY, follow this message.

Severity: 8 (error)

System Action: Processing continues normally.

User Response: Change the LOCATE statement to locate the desired RID, and resubmit the request in a new utility job step.

DSNU659I *csect-name* REPAIR LEVELID OPERATION DISALLOWED.

Explanation: The REPAIR utility with the LEVELID clause is not allowed. Possible reasons are:

- The data set was in use at the time the REPAIR utility was run.
- The page set has outstanding log apply activity (an indoubt UR has interest in the page set or the page set has pages in the logical page list (LPL)).

Severity: 8 (error)

System Action: Processing ends with this operation.

User Response: The REPAIR LEVELID operation for the given index space or table space cannot continue at this stage. If the page set is in use, you should not attempt to run REPAIR LEVELID. If the page set has log apply activity outstanding (in-doubt UR or pages in LPL), the log apply activity must complete before using REPAIR LEVELID. Submit other REPAIR control statements in a different job step.

DSNU660I *csect-name* **POSSIBLE RID** *rid*

Explanation: 'rid' is one of several records that map to the specified KEY.

Severity: 8 (error)

System Action: Other records also mapping to the specified KEY are identified by other DSNU660I messages. This message is preceded by message DSNU658I. Processing continues normally.

User Response: Change the LOCATE statement to locate the desired RID, and resubmit the request in a new utility job step. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU661I *csect-name* **RECORD NOT FOUND IN PAGE, MAXID=** *hex-data*

Explanation: A RID was either specified or obtained from the clustering index via the specified KEY. The PAGE indicated in the RID did not contain the RECORD indicated in the RID.

Severity: 8 (error)

System Action: Processing proceeds to the next LOCATE statement, if there is one.

User Response: Either change the LOCATE statement to locate a valid RID or KEY, or use LOCATE PAGE and resubmit the REPAIR statements in a new utility job step. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU662I *csect-name* **NO RECORD FOUND WITH SPECIFIED KEY**

Explanation: A KEY was specified on the LOCATE statement, but no entry exists in the clustering index for that KEY.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE statement, if there is one.

User Response: Correct the LOCATE statement, and resubmit the REPAIR statements in a new utility job step.

DSNU663I *csect-name* **PAGE** *hex-page-number* **NOT FOUND**

Explanation: The page identified a record identifier (RID) or KEY does not exist in the specified table space.

Severity: 0 (informational) when issued by DUMP PAGES(n). 8 (error) when issued by LOCATE PAGE(n).

System Action: Processing begins at the next LOCATE statement, if there is one.

User Response: Correct the LOCATE statement, and resubmit the REPAIR statements in a new utility job step.

DSNU664I *csect-name* **INVALID OFFSET OR LENGTH FOR** *xxxxx*

Explanation: 'xxxxx' is 'RECORD' or 'PAGE'. The specified or default values for OFFSET and LENGTH combine to extend beyond the specified record or page.

Severity: 4 (warning)

System Action: Processing continues at the next LOCATE statement, if there is one.

User Response: Correct the OFFSET and/or LENGTH specification, and resubmit the REPAIR statements in a new utility job step. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU665I *csect-name* **NO RECORD ASSOCIATED WITH SPECIFIED RID**

Explanation: A record identifier (RID) was specified on the LOCATE statement, but that RID is not associated with any record in the specified table space. If DELETE processing returns this message, the RID may exist but be invalid for DELETE.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE statement, if there is one. Subsequent utilities in the same job step will not be executed.

User Response: Correct the LOCATE statement, and resubmit the REPAIR statements in a new utility job step.

Problem Determination: REPAIR DELETE will issue this message for RIDs which are internal and do not directly represent user data. The DUMP keyword may be used to view the RID, if it exists. These internal records may only be repaired using the REPLACE keyword.

DSNU666I *csect-name* **NO INDEX EXISTS**

Explanation: The KEY for this table space is not a full clustering key. The statement is invalid.

Severity: 8 (error)

System Action: Processing continues at the next LOCATE statement, if there is one.

User Response: Correct the LOCATE statement to use the clustering index, or change LOCATE by PAGE or RID. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU668I *csect-name* **UNABLE TO CONVERT KEY TO format**

Explanation: 'format' specifies the data type to which the KEY specification must be converted. The conversion has failed.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE statement, if there is one.

User Response: Correct the LOCATE statement to specify a KEY either of the indicated data type or of a compatible data-type. Then resubmit the REPAIR statements in a new utility job step. Refer to *DB2 Utility Guide and Reference* for a discussion of conversion constraints.

DSNU669I *csect-name* **INDEX NOT FOUND FOR SPECIFIED TABLESPACE**

Explanation: An index was specified on the LOCATE KEY statement via the INDEX keyword, but no index by that name was found related to the specified TABLESPACE.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE statement, if there is one.

User Response: Correct the LOCATE statement and resubmit the REPAIR statements in a new utility job step.

Problem Determination: Valid index names can be found in the SYSIBM.SYSINDEXES catalog table.

DSNU670I *csect-name* **PAGE X page-id IS A BROKEN PAGE**

Explanation: The indicated page located by the REPAIR utility has been marked broken by the data manager. The 'page id' is given in hexadecimal. This page is not accessible until the broken page indicator is reset by the REPAIR REPLACE RESET option.

Severity: 4 (warning)

System Action: The message reports that the page in which the REPAIR utility is requested to REPLACE some data is broken.

User Response: Determine the cause of the broken page with the assistance of the system programmer. When it is repaired, use the REPAIR RESET option.

System Programmer Response: Determine the cause of the broken page. It could be an internal error and require support center assistance. The REPAIR DUMP option can be used to determine the contents of the page for failure analysis. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU672I *csect-name* **INDEX USED HAS MULTIPLE-FIELD KEY**

Explanation: A REPAIR LOCATE KEY operation was attempted against a table space using an index that has a multiple-field key. LOCATE KEY does not support multiple-field keys.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE scope, if any.

User Response: Change the LOCATE statement to specify PAGE and RID, and resubmit the REPAIR statements in a new utility job step.

DSNU673I *csect-name* **REPAIR LOCATE RID LOCATED A NON-DATA PAGE**

Explanation: The LOCATE RID option of the REPAIR utility was used to process a nondata page.

Severity: 8 (error)

System Action: Processing continues at the next LOCATE statement. Otherwise, processing stops.

User Response: To process nondata pages, use the LOCATE PAGE option in the REPAIR control statements and resubmit the new utility job step. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU676I *csect-name* - **ROWID=rowid VERSION=version IS NOT FOUND IN AUXILIARY INDEX**

Explanation: The REPAIR utility was unable to locate the ROWID *rowid* and VERSION *version* in the index on the auxiliary table.

System Action: Utility returns completion code=8.

Programmer Response: Correct the ROWID or VERSION. Only ROWID and VERSION values previously generated by DB2 can be used. The most

likely source values of a ROWID and VERSION are messages DSNU743I, DSNU805I, and DSNU806I from the CHECK DATA or CHECK LOB utilities.

DSNU678I *csect-name* **VERIFY, REPLACE, DUMP, OR DELETE BEFORE LOCATE**

Explanation: The REPAIR utility was requested to VERIFY, REPLACE, or DUMP or DELETE a page or record and that page of record could not be located.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE statement, if there is one. Subsequent utilities in the same job step will not be executed.

User Response: Correct the REPAIR control statements, and resubmit the request in a new utility job step. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU679I *csect-name* **MULTIPLE 'DELETE'S PER 'LOCATE' NOT ALLOWED**

Explanation: The REPAIR utility was requested to DELETE the same record more than once. Only one DELETE is allowed per LOCATE RID or LOCATE KEY.

Severity: 8 (error)

System Action: Processing begins at the next LOCATE scope, if any. Subsequent utilities in the same job step are not executed.

User Response: Remove all but one DELETE control statement from each LOCATE scope which is intended to delete a record. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU680I *csect-name* **PAGE** *hex-page-number*

Explanation: This message is issued as an identifier at the top of each page dumped by the REPAIR DUMP PAGES facility. 'hex-page-number' identifies the page which is about to be dumped.

Severity: 0 (informational)

System Action: Processing continues.

DSNU681I *csect-name* **SET NOCHECKPEND OPERATION SUCCESSFUL**

Explanation: This message reports the successful completion of the REPAIR SET TABLESPACE NOCHECKPEND utility operation. The check pending restriction has been removed from the specified table space.

Severity: 0(informational)

System Action: The REPAIR SET statement has completed normally.

DSNU682I *csect-name* **SET NORCVRPEND OPERATION SUCCESSFUL**

Explanation: This message reports the successful completion of the REPAIR SET NORCVRPEND utility operation. The RECOVERY PENDING restriction has been removed from the specified table space, from the specified index, or from all indexes of the specified table space.

Severity: 0 (informational)

System Action: The REPAIR SET statement has completed normally.

DSNU683I *csect-name* **REPAIR LEVELID OPERATION SUCCESSFUL.**

Explanation: The REPAIR utility with the LEVELID clause completed successfully.

Severity: 0 (informational)

System Action: Processing completed successfully.

User Response: Submit any other REPAIR control statements in a different job step.

DSNU684I *csect-name* - **SET NOAUXCHKP OPERATION SUCCESSFUL**

Explanation: This message reports the successful completion of the REPAIR SET NOAUXCHKP utility operation. The auxiliary check pending (ACHKP) state has been removed for the specified base table space.

System Action: Utility returns completion code=0.

DSNU685I *csect-name* **SET NORBDPEND OPERATION SUCCESSFUL**

Explanation: This message reports the successful completion of the REPAIR SET NORBDPEND utility operation. The three restrictions REBUILD PENDING, REBUILD PENDING STAR and PAGESET REBUILD PENDING have been removed from the specified index or from all indexes of the specified table space.

Severity: 0 (informational)

System Action: The REPAIR SET statement has completed normally.

DSNU686I *csect-name* - **SET NOAUXWARN OPERATION SUCCESSFUL**

Explanation: This message reports the successful completion of the REPAIR SET NOAUXWARN utility operation. The AUX WARNING state has been removed for the specified table space.

Severity: 0 (informational)

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System Action: Utility returns completion code=0.

Programmer Response: None.

DSNU687I *csect-name* - **ROWID=rowid**
VERSION=version LOB DELETED

Explanation: The LOB with the ROWID *rowid* and VERSION *version* was successfully deleted from the specified LOB table space.

System Action: Utility returns completion code=0.

Programmer Response: None

DSNU688I *csect-name* **SET NOARBDPEND**
OPERATION SUCCESSFUL

Explanation: The REPAIR utility successfully reset an object that was in an advisory rebuild pending (ARBD) state.

Severity: 0 (informational)

System Action: No action required.

User Response: No response required.

DSNU689I *csect-name* **SET NOAREORPENDSTART**
OPERATION SUCCESSFUL

Explanation: The REPAIR utility successfully reset an object that was in an advisory reorg pending (AREO*) + state.

Severity: 0 (informational)

System Action: No action required.

User Response: No response required.

DSNU691I *csect-name* - **LOB WITH ROWID=rowid**
VERSION=version NOT FOUND

Explanation: The REPAIR utility was unable to find a LOB with the ROWID of *rowid* and VERSION *version*.

System Action: Utility returns completion code=8.

Programmer Response: Either the ROWID is incorrect, or the index on the auxiliary table is broken. In the first case correct the ROWID as specified on the **LOCATE ROWID** statement. If the index on the auxiliary table is broken, execute the REBUILD INDEX utility to rebuild the index.

DSNU700I *csect-name nnnn* **INDEX ENTRIES**
UNLOADED FROM INDEX=iiii
PARTITION=pppp

Explanation: The CHECK utility UNLOAD phase unloaded *nnnn* records from the index named *iiii* and partition *pppp*.

Severity: 0 (informational)

System Action: Processing continues.

DSNU701I *csect-name nnnn* **INDEX ENTRIES**
UNLOADED FROM iiii

Explanation: The CHECK Utility UNLOAD phase unloaded *nnnn* records from the index named *iiii*.

Severity: 0 (informational)

System Action: Processing continues.

DSNU702I *csect-name* **INVALID INDEX**
SPECIFICATION. INDEX=iiii

Explanation: All tables referenced by the INDEXES in the CHECK or REBUILD utility must be in the same table space. Index 'iiii' is not over a table in the table space specified with the TABLESPACE keyword.

Severity: 8 (error)

System Action: Utility processing is discontinued.

User Response: Correct the index name and/or the TABLESPACE parameters such that a single table space is involved, and rerun the utility job.

Problem Determination: To CHECK or REBUILD ALL INDEXES in a table space, use the TABLESPACE keyword, but do not use the list option. This is one way to correct this error. If you want to correct the list of indexes specified in the index name list, the following procedure will locate the table space name related to the index 'iiii'.

The index name 'iiii' reported in the message is of the form 'creator.name'. Obtain the TBCREATOR and TBNAME columns from the DB2 catalog table SYSIBM.SYSINDEXES where columns CREATOR and NAME have the values reported in the message. Obtain the DBNAME and TSNAME columns from the DB2 catalog table SYSIBM.SYSTABLES, where columns CREATOR and NAME have the values obtained from TBCREATOR and TBNAME of SYSIBM.SYSINDEXES.

The values for DBNAME and TSNAME must be the same for all indexes specified in the index name list and must be the same as the table space name specified on the TABLESPACE keyword (if provided).

DSNU703I *csect-name* **INVALID INDEX**
SPECIFICATION. INDEX=iiii

Explanation: All tables referenced by the indexes in the CHECK or REBUILD utility must be in the same table space. Index 'iiii' is not over a table in the same table space as the prior indexes listed in the index name list.

Severity: 8 (error)

System Action: Utility processing is discontinued.

User Response: Correct the index name and/or the TABLESPACE parameters such that a single table space is involved, and rerun the utility job.

Problem Determination: To CHECK or REBUILD ALL INDEXES in a table space, use the TABLESPACE keyword, but do not use the list option. This is one way to correct this error. If you want to correct the list of indexes specified in the index name list, the following procedure will locate the table space name related to the index 'iiii'.

The index name 'iiii' reported in the message is of the form 'creator.name'. Obtain the TBCREATOR and TBNAME columns from the DB2 catalog table SYSIBM.SYSINDEXES, where columns CREATOR and NAME have the values reported in the message. Obtain the DBNAME and TSNAME columns from the DB2 catalog table SYSIBM.SYSTABLES, where columns CREATOR and NAME have the values obtained from TBCREATOR and TBNAME of SYSIBM.SYSINDEXES.

The values for DBNAME and TSNAME must be the same for all indexes specified in the index name list and must be the same as the table space name specified on the TABLESPACE keyword if provided.

DSNU705I *csect-name* **UNLOAD PHASE COMPLETE, ELAPSED TIME=tttt**

Explanation: The unload phase of the CHECK or REBUILD INDEX utility is complete.

Severity: 0 (informational)

System Action: Processing continues.

DSNU706I *csect-name* **ROW IS IN WRONG PARTITION RID=rrrr, INDEX=iiii, KEY=kkkk, CORRECT PART=pppp, WRONG PART=wwwww**

Explanation: The row at RID 'rrrr' resides in the wrong partition. The partitioning KEY 'kkkk' for partitioning INDEX 'iiii' indicates that the row at RID 'rrrr' should reside in partition 'pppp', however the rid indicates that the row contains partition 'wwwww'.

Severity: 4 (warning)

System Action: Utility processing continues.

User Response: Run RECOVER TABLESPACE utility to recover the data or run REPAIR DELETE utility to delete the row 'rrrr' followed by CHECK INDEX and CHECK DATA utility if referential constraints are involved.

Problem Determination: The inconsistency between the table space partition number of a row and the index space partition number of the row's clustering key may be due to a DB2 internal error, but is most likely due to a user using the DSN1COPY service aid to populate a target table space with data from a source table space when the clustering key values on the source and target table spaces are not identical.

DSNU707I *csect-name* **INDEX ENTRY POINTS TO WRONG TABLE. OBID=oooo, RID=rrrr, INDEX=**

Explanation: The CHECK utility CHECKIDX phase found that index 'iiii' contains an entry for key 'kkkk' that points to record at RID 'rrrr', but the record belongs to the table with OBID 'oooo'.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the REBUILD INDEX utility for index 'iiii'.

DSNU708I *csect-name* **INDEX IS NOT UNIQUE. INDEX=iiii, KEY=kkkk**

Explanation: The CHECK utility CHECKIDX phase found that unique index 'iiii' contains a nonunique key, 'kkkk'.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Drop the unique index, and delete the duplicate rows. Re-create the index.

DSNU709I *csect-name* **NO INDEX ENTRY FOR ROW. RID=rrrr, INDEX=iiii, KEY=kkkk**

Explanation: The CHECK utility CHECKIDX phase found that index 'iiii' is missing an entry for the row at RID 'rrrr' with key 'kkkk'.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the REBUILD INDEX utility for index 'iiii'.

DSNU710I *csect-name* **INDEX ENTRY CONTAINS INVALID ZERO REPRESENTATION. RID=rrrr, INDEX=iiii, KEY=kkkk**

Explanation: The CHECK utility CHECKIDX phase found that index 'iiii' has an entry that contains a negative zero. The index entry is for the row at RID 'rrrr' with key 'kkkk'.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the REBUILD INDEX utility for index 'iiii'.

DSNU711I *csect-name* **NO ROW FOR INDEX ENTRY. RID=rrrr, INDEX=iiii, KEY=kkkk**

Explanation: The CHECK utility CHECKIDX phase found that the index 'iiii' contains an entry that has no row. The index entry contained RID 'rrrr' and key 'kkkk'.

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but RID 'rrrr' is not a valid record.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the REBUILD INDEX utility for index 'iiii'.

DSNU712I *csect-name* **INDEX OUT OF SEQUENCE.**
INDEX=iiii, KEY=kkkk

Explanation: The CHECK utility CHECKIDX phase found that index 'iiii' is not in correct sequence.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the REBUILD INDEX utility for index 'iiii'.

DSNU713I *csect-name* **KEYS MISMATCH. RID=rrrr,**
INDEX=iiii, KEY=kkkk, DATA KEY=jjjj

Explanation: The CHECK utility CHECKIDX phase found that index iiii contains an entry for the row at rid rrrr that is inconsistent. KEY kkkk does not match DATA KEY jjjj.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the REBUILD INDEX utility for index 'iiii'.

DSNU715I *csect-name* **MULTIPLE INDEX ENTRIES**
FOR ROW. RID=rrrr, INDEX=iiii,
KEY=kkkk

Explanation: The CHECK utility CHECKIDX phase found that index 'iiii' has multiple index entries for the row at RID 'rrrr' with key 'kkkk'.

Severity: 4 (warning)

System Action: CHECK utility processing continues.

User Response: Run the REBUILD INDEX utility for index 'iiii'.

DSNU717I *csect-name nnnn* **ENTRIES CHECKED**
FOR INDEX=iiii PARTITION=pppp

Explanation: The CHECK utility completed checking index iiii partition pppp and processed nnnn index entries. This message is issued once for each index partition checked.

Severity: 0 (informational)

System Action: Processing continues.

DSNU718I *csect-name* **NO INDEXES FOUND FOR**
TABLESPACE tttt

Explanation: A utility has been invoked with the TABLESPACE keyword specifying a table space containing tables that have no indexes.

Severity: 4 (warning)

System Action: This message indicates completion of the utility. Processing continues to the next utility statement in the job step, if any. If there are no utility statements following, the job step is terminated normally and the UTILID of the job step becomes available for reuse.

User Response: If the table space specification is in error, correct it and resubmit the utility. If the table space specification is correct, and the table space contains no indexed tables, this is a normal indication and no response is necessary.

DSNU719I *csect-name nnnn* **ENTRIES CHECKED**
FOR INDEX iiii

Explanation: The CHECK utility has completed checking index 'iiii' and has processed 'nnnn' index entries. This message will be issued once for each index checked.

Severity: 0 (informational)

System Action: Processing continues.

DSNU720I *csect-name* **CHECKIDX PHASE**
COMPLETE, ELAPSED TIME = tttt

Explanation: The CHECK utility CHECKIDX phase is complete.

Severity: 0 (informational)

System Action: Processing continues.

DSNU721I *csect-name - USER auth-id* **DOES NOT**
HAVE DELETE AUTHORITY ON TABLE

Explanation: The CHECK DATA utility was run with DELETE YES, but user *auth-id* does not have authority to delete from a table specified in the utility statement or from one of its descendents.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Obtain authorization to delete from the tables specified in the utility statement and any of its descendents that are affected.

DSNU722I *csect-name* - **USER** *userid* **DOES NOT HAVE INSERT AUTHORITY ON EXCEPTION TABLE**

Explanation: The CHECK DATA utility was run with FOR EXCEPTION specified but user 'userid' does not have authority to insert into an exception table specified in the utility statement.

Severity: 8 (error)

System Action: Further utility processing is terminated.

User Response: Obtain authorization to insert into all of the exception tables specified in the utility statement.

DSNU725I *csect-name* **DUPLICATE TABLESPACE** *tsp* **NAMES EXIST IN THE TABLESPACE LIST**

Explanation: This message is issued by the CHECK DATA utility when a duplicate table space 'tsp' is found in the table space list. An entry in the list for the same table space with a partition specified is also considered a duplicate. This is because all partitions are the default when no partition is specified for a partitioned table space. The CHECK DATA utility proceeds and the duplicate entry is skipped.

Severity: 4 (warning)

System Action: Processing continues.

DSNU726I *csect-name* **SCOPE PENDING IS ACTIVE, BUT THE ENTIRE TABLE SPACE** *tsp* **MUST BE CHECKED**

Explanation: This message is issued by the CHECK DATA utility when checking with the option SCOPE PENDING. Table space *tsp* is in check pending status, but the utility is checking all rows in dependent tables or tables defined with check constraints in that table space.

Severity: 4 (warning)

System Action: The utility continues processing.

DSNU727I *csect-name* **TABLESPACE** *tsp* **IS NOT CHECK PENDING**

Explanation: This message is issued when 'CHECK DATA TABLESPACE *tsp* SCOPE PENDING' is specified and the CHECK DATA utility finds that the table space is not in a check pending state. The CHECK DATA utility skips table space 'tsp' and will continue with any other table space specified. The catalog fields that reflect the extent of a check pending state are updated to ensure that they indicate that no check is required.

Severity: 4 (warning)

System Action: Processing continues.

DSNU728I *csect-name* **INVALID EXCEPTION TABLE** *table2* **FOR** *table1*

Explanation: This message is issued when the CHECK DATA utility finds an exception table is invalid. The exception table named 'table2' which was specified for rows from table, 'table1', is invalid. Either 'table2' was missing columns of 'table1' or 'table2' contained incompatible column attributes. The CHECK DATA utility will terminate processing after all exception tables have been examined.

Severity: 8 (error)

System Action: The CHECK DATA utility will terminate processing after all the exception tables have been examined.

User Response: Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for a definition of the CREATE TABLE command with the LIKE operand to correct the invalid exception table.

DSNU729I *csect-name* **TABLE** *table-name* **NOT SPECIFIED IN THE 'FOR EXCEPTION' CLAUSE**

Explanation: The CHECK DATA utility did not find a required table listed in the FOR EXCEPTION clause. All tables with constraints in the table spaces being checked and their descendants must be listed in the FOR EXCEPTION clause of CHECK DATA utility.

Severity: 8 (error)

System Action: The CHECK DATA utility terminates processing after all the required tables are examined.

User Response: Examine the utility input statement to determine the reason for the missing table named in the message. Correct the input statement to include the missing table and resubmit the job. Refer to *DB2 Utility Guide and Reference* for information about the FOR EXCEPTION clause of the CHECK DATA utility and use of exception tables.

DSNU730I *csect-name* **CHECKING TABLE** *tab*

Explanation: This message is issued when the CHECK DATA utility begins to process a table. The name of table being checked is 'tab'.

Severity: 0 (informational)

System Action: Processing continues.

DSNU731I *csect-name* **EXCEPTION LIMIT REACHED**

Explanation: The EXCEPTION limit specified on the CHECK utility statement has been reached.

Severity: 8 (error)

System Action: The CHECK utility terminates processing.

User Response: If required, increase the exception limit and resubmit the job.

DSNU732I NO TABLE TO BE CHECKED FOR TABLESPACE *tsp*

Explanation: The CHECK DATA utility determined that none of the tables in table space *tsp* has a constraint defined. Therefore, no table in that table space is checked.

This message is issued by the following CSECT: DSNUKINP

Severity: 4 (warning)

System Action: Utility processing continues.

DSNU733I *csect-name* ROW (RID=*rrrrrr*) HAS NO PARENT FOR *rel*

Explanation: This message is issued when the CHECK DATA utility finds a row in a dependent table without a parent. The row with RID, '*rrrrrr*', has no parent for the relationship named '*rel*'. This message is always preceded by a DSNU730I message that identifies the table in error.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for a discussion of the check pending operation.

DSNU735I *csect-name* DUPLICATE TABLESPACE *tsp* PARTITION *part* NAMES EXIST IN THE TABLESPACE LIST

Explanation: This message is issued by the CHECK DATA utility when a duplicate table space '*tsp*' and partition '*part*' is found in the table space list. An entry in the table space list with a partition specified is considered to be a duplicate when another entry for the same table space with no partition specified (defaults to all partitions for a partitioned table space) is found. In this case, the table space list entry with no partition specified has priority and the entry with a partition specified is skipped. The CHECK DATA utility proceeds and the duplicate entry is skipped.

Severity: 4 (warning)

System Action: Processing continues.

DSNU736I *csect-name* SCOPE PENDING IS ACTIVE, BUT THE ENTIRE TABLE SPACE *tsp* PARTITION *part* MUST BE CHECKED

Explanation: This message is issued by the CHECK DATA utility when checking with the option SCOPE PENDING. Table space *tsp* partition *part* is in check pending status, but the utility is checking all rows in that table space partition.

Severity: 4 (warning)

System Action: The utility continues processing.

DSNU737I *csect-name* TABLESPACE *tsp* PARTITION *part* IS NOT CHECK PENDING

Explanation: This message is issued when 'CHECK DATA TABLESPACE *tsp* PART *part* SCOPE PENDING' is specified and the CHECK DATA utility finds that the table space partition is not in a check pending state. The CHECK DATA utility skips table space '*tsp*' partition '*part*' and continues with any other table space specified. The catalog fields that reflect the extent of a check pending state are updated to ensure that they indicate that no check is required.

Severity: 4 (warning)

System Action: Processing continues.

DSNU739I *csect-name* CHECK TABLE *tab* COMPLETE, elapsed time=*t1*

Explanation: This message is issued when the CHECK DATA utility finishes processing a table. The elapsed clock time that the check of table '*tab*' consumed is '*t1*'.

Severity: 0 (informational)

DSNU740I *csect-name* CHECKING TABLE *tab* PARTITION *part*

Explanation: This message is issued when the CHECK DATA utility begins to process a table of a partitioned table space in which a single partition was specified. The name of the table and the number of the partition being checked are identified in the message.

Severity: 0 (informational)

System Action: Processing continues.

DSNU741I *csect-name nn* ROWS DELETED FROM TABLE *tab*

Explanation: This message is issued by the CHECK DATA utility when the DELETE YES option is specified. The number of rows deleted from TABLE *tab* is the number of rows that contain referential integrity violations or check constraint violations, plus their

descendent rows. The number of rows deleted from TABLE *tab* is equal to the number of rows inserted into the corresponding exception table.

Severity: 4 (warning)

System Action: Processing continues.

DSNU742I *csect-name* ROW (RID=*rrrrr*) VIOLATES CHECK CONSTRAINT *constraint-name* ON TABLE *table-name*

Explanation: The CHECK DATA utility found that the row with RID=*rrrrr* in table *table-name* violated check constraint *constraint-name*.

Severity: 4 (warning)

System Action: Processing continues

User Response: Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for a discussion of the check pending operation and recovery procedures.

DSNU743I *csect-name* - LOB WITH ROWID=*rowid* VERSION=*version* IS INVALID

Explanation: The CHECK LOB utility found that the LOB column with *rowid* ROWID and VERSION *version* was marked as invalid.

System Action: LOB table space is set Aux Warning. Utility returns completion code=4.

Programmer Response: The LOB column must be updated or the row containing the LOB column deleted using SQL to remove the invalid indication.

DSNU745I *csect-name* - ROWID=*rowid* VERSION=*version* RID=*rid* MISSING IN LOB TABLE SPACE=*lob-table-space-name*

Explanation: The CHECK INDEX utility found an index entry key with ROWID *rowid* and VERSION *version* in the index, but not in the LOB table space named *lob-table-space-name*.

System Action: The utility returns completion code=4. The index is set Recover Pending.

Programmer Response: Use REBUILD INDEX or RECOVER to correct the index on the auxiliary table.

DSNU747I *csect-name* - ROWID=*rowid* VERSION=*version* MISSING IN INDEX=*index-name*

Explanation: The CHECK INDEX utility found a LOB with ROWID *rowid* and VERSION *version* in the LOB table space but not in the index on the auxiliary table, *index-name*.

System Action: Utility returns completion code=4. The index is set Recover Pending.

Programmer Response: Use REBUILD INDEX to correct the index on the auxiliary table.

DSNU749I *csect-name* CHECK DATA COMPLETE, ELAPSED TIME=*t1*

Explanation: This message is issued when the CHECK DATA utility is complete. The elapsed clock time that the CHECK DATA utility consumed is 't1'.

Severity: 0 (informational)

System Action: Processing ends.

DSNU750I *csect-name* CATMAINT *operation* PHASE *phase-number* STARTED

Explanation: The CATMAINT utility phase *phase-number* processing started for the indicated operation.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU751I *csect-name* CATALOG *operation* OF TABLE - *table-name*

Explanation: This message is issued the first time data is operated upon for the designated table.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU752I *csect-name* CATMAINT *operation* PHASE *phase-number* COMPLETED

Explanation: The CATMAINT utility PHASE *phase-number* processing completed for the indicated operation.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU756I *csect-name* CATALOG TABLE IS EMPTY - *table-name*

Explanation: This message is issued when the named table is empty.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU759I *csect-name* INCORRECT UNLOAD DATASET HAS BEEN DETECTED

Explanation: This message indicates an inconsistency between the release level of the unloaded catalog and the DB2 release that is running the CATMAINT utility.

Severity: 8 (error)

System Action: Utility processing terminates.

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User Response: Review the JCL for the job to ensure that the correct unload data set is specified. Verify that the correct level of DB2 is up.

DSNU760I *csect-name* **SPECIFIED USER NOT DEFINED WITH INSTALLATION SYSADM AUTHORITY**

Explanation: The utility can be run only under a user defined with the installation SYSADM authority.

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Rerun the utility with the proper authorization.

DSNU762I *csect-name* **DUPLICATE RECORD DETECTED FOR TABLENAME - table-name SEQNO OF THE INPUT RECORD IS - seqno FOLLOWING IS UP TO 119 BYTES OF RECORD BEING INSERTED**

Explanation: An object created in the target catalog has the same name as an object being migrated from the source catalog.

Severity: 8 (error)

System Action: Utility abends.

User Response: User data should not be in the target catalog before running the CATMAINT utility. Free or drop the object from the target catalog and rerun the CATMAINT utility.

DSNU764I *csect-name* **FOLLOWING IS UP TO 119 BYTES OF RECORD FOR TABLE table-name, SEQNO seqno BEING PROCESSED AT THE TIME OF ERROR**

Explanation: An abend occurred during the execution of the CATMAINT utility, during the processing of the table, 'table-name', with a sequence number of 'seqno'. The cause of the abend is one of the following:

- The record sequence number was invalid.
- An unexpected return code was received from DSNUEXLO.
- The table name was not found in the load table (DSNUELTB).
- The parent record could not be positioned.
- The position OBID was zero (DSNUELTB has incorrect value).
- The record action code is incorrect.

Following this message, up to the first 119 bytes of the record in question is displayed.

Severity: 8 (error)

System Action: Utility abends.

User Response: Verify that the record in the unloaded data set is correct.

DSNU765I *csect-name* **THE DB2 CATALOG IS NOT AT THE REQUIRED LEVEL. CATALOG NOT UPDATED**

Explanation: The DB2 catalog is not at the proper catalog level to migrate the catalog. This error can occur due to the following reasons:

- Attempting to migrate the catalog from a DB2 release that does not support migration
- Attempting to migrate DB2 Stored Procedures prior to a catalog migration

Severity: 8 (error)

System Action: Utility processing terminates

User Response: Depending on the migration error, perform the necessary actions:

- If the catalog is not at the correct level for a migration, fall back to the previous release. Migrate only from DB2 releases that support migration.
- Prior to attempting a Stored Procedure migration, migrate the DB2 catalog to the current release. After migrating the DB2 catalog, then you can migrate the Stored Procedures.

DSNU766I *csect-name* **THE CATALOG HAS ALREADY BEEN MIGRATED. NO ACTION WILL BE TAKEN**

Explanation: The catalog was already successfully migrated. There is no reason to rerun the catalog migration job. Therefore, no action is taken to update the DB2 catalog.

Severity: 0 (informational)

System Action: Processing ends.

DSNU767I *csect-name* **DB2 SYSTEM MUST BE STARTED ACCESS(MAINT)**

Explanation: In order for the utility to execute, the DB2 subsystem must be started with ACCESS(MAINT). This message indicates that the subsystem was not started in this manner.

Severity: 8 (error)

System Action: -STOP DB2, and then -START DB2 with ACCESS(MAINT).

DSNU768I *csect-name* **CATMAINT CONVERT COMPLETE FOR INDEX index-name**

Explanation: The conversion is complete for index index-name.

Severity: 0 (informational)

System Action: Processing continues with the next index.

DSNU769I *csect-name* **THE BUILD PHASE FAILED FOR INDEX *index-name* REASON *reason***

Explanation: The CATMAINT CONVERT build phase failed for index *index-name*. This message and others identify the actions that should be taken.

Severity: 8 (error)

Operator Response: Note the reason code and the index name. See the Problem Determination section for an explanation of the collected data.

System Action: Utility processing continues with the next index and will terminate with return code 8.

User Response: Correct the problem indicated by the reason code. Either resubmit the CATMAINT CONVERT job or recover the index that failed.

Problem Determination: The reason the build phase failed is identified by the reason code, which is described in Part 4, "Section 4. DB2 Codes," on page 773.

DSNU770I *csect-name - DBD type* **STARTED FOR DATABASE *database***

Explanation: This message marks the start of the REPAIR DBD type utility. In the message, 'type' can be DIAGNOSE, REBUILD, or TEST. The database name specified in the REPAIR statement is 'database'.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU771I *csect-name - DBD type* **COMPLETE FOR DATABASE *database***

Explanation: This message marks the completion of the REPAIR DBD type utility. In the message, 'type' can be DIAGNOSE, REBUILD, or TEST. The database name specified in the REPAIR statement is 'database'.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU772I *csect-name - THE object-type qualifier.object-name* **IS UNAVAILABLE IN THIS RELEASE**

Explanation: This message indicates that the specified object has a dependency on a release from which fall back has occurred, and cannot be operated upon in the current release.

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Check the IBMREQD column of the catalog table associated with the specified object type. If the value in the catalog table is the release dependency mark for a release of DB2 from which fall back has occurred, the utility is not operational for the current release of the targeted database.

DSNU773I *csect-name - database* **IS A SYSTEM DATABASE AND CANNOT BE PROCESSED**

Explanation: The database indicated is not eligible for processing by the type of the REPAIR DBD utility involved.

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Ensure that the utility control statement specifies the correct database.

DSNU774I *csect-name - SPECIFIED DATABASE database* **NOT FOUND**

Explanation: The database indicated by the utility control statement was not found in catalog table SYSIBM.SYSDATABASE.

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Ensure that the database indicated by the utility control statement exists in SYSIBM.SYSDATABASE.

DSNU775I *csect-name - DROP OF DATABASE dbname* **FAILED WITH SQLCODE = *sqlcode***

Explanation: An error was encountered while using the REPAIR DBD DROP utility to drop DATABASE 'dbname'. The SQL error code is indicated by 'sqlcode'.

Severity: 8 (error)

System Action: DATABASE 'dbname' is not dropped.

User Response: For a description of the SQL error code that was issued, refer to Part 2, "SQL return codes," on page 11.

DSNU776I *csect-name* **CATMAINT operation ERROR - *error-text***

Explanation: The CATMAINT utility halted because the catalog contains view(s) on the SYSCOLDIST and/or SYSCOLDISTSTATS catalog tables.

Severity: 0 (informational)

System Action: Utility processing halts.

User Response: Remove the views on these catalog tables. Then retry the failing CATMAINT *operation*. This

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message is followed by an abend04E RC00E40601. See the problem determination text of RC00E40601 for additional information.

DSNU777I *csect-name* **CATMAINT** *operation*
STATUS *status-msg*

Explanation: The CATMAINT utility is processing CATMAINT *operation*. *status-msg* indicates where CATMAINT is in the *operation* process.

Severity: 0 (informational)

System Action: Utility processing continues normally.

DSNU778I *csect-name* - **ERROR PROCESSING**
SQL STATEMENT - SQL CODE IS:
sql-code **SQL MESSAGE TOKENS:**
message-token(s) **THE FOLLOWING IS**
THE PROBLEM SQL STATEMENT:
sql-statement

Explanation: There was a utility abend in the DB2 database services address space (ssnmDBM1) during CATMAINT UPDATE processing. The *message-tokens* displayed are those found in the SQLERRMT field of the SQLCA, separated by commas, for the indicated SQLCODE *sql-code*. The problem SQL statement *sql-statement* is also displayed.

Severity: 0 (informational).

System Action: Utility processing abends.

User Response: This message is followed by an abend04E RC00E40601. The *sql-code*, *message-tokens*, and *sql-statement* listed in this message are probably sufficient to diagnose and correct the problem. See the problem determination text of RC00E40601 for additional information.

DSNU780I *csect-name* **DSNUTILB LEVEL** *rel1*
INVALID WITH SUBSYSTEM LEVEL *rel2*

Explanation: JCL has been submitted which executes level 'rel1' of DSNUTILB against a level 'rel2' DB2 subsystem. The levels must match.

Severity: 8 (error)

System Action: The utility terminates with a return code of 8.

User Response: Determine the DB2 subsystem against which you wish to execute. Determine which STEPLIB data set contains the corresponding DSNUTILB load module. Correct the JCL to specify the correct data set on the STEPLIB DD statement and the correct DB2 subsystem on the EXEC statement and resubmit the job.

DSNU781I *csect-name* **RESTART OF LEVEL** *rel1*
UTILITY AT LEVEL *rel2* **INVALID**

Explanation: JCL has been submitted which attempts to RESTART a stopped utility. The utility began processing at level 'rel1' and cannot be restarted at level 'rel2'.

System Action: The utility job is abended with reason code X'00E40018'.

User Response: Either restart the utility at the same level it was originated or terminate the utility with the TERM command and resubmit it at the new level. Refer to *DB2 Command Reference* for special TERM command considerations.

DSNU782I *csect-name* **UNABLE TO RECOVER**
DUE TO ACTIVITY AT ANOTHER
SYSTEM LEVEL

Explanation: The RECOVER utility is unable to recover the specified table space. Activity at another system level has left all image copies for this table space inconsistent with the DB2 LOG.

Severity: 8 (error)

System Action: The utility terminates with a return code of 8.

User Response: The table space, in its entirety can not be recovered. Individual data sets may be recoverable using the DSNUM() keyword.

DSNU783I *csect-name* **INDEXES DSN SCT02,**
DSNLUX01, DSNLUX02 and DSNLLX02
HAVE SUBPAGES VALUE GREATER
THAN 1 AND CANNOT BECOME
GROUP BUFFER POOL DEPENDENT.

Explanation: CATMAINT CONVERT TO TYPE 1 DIRECTORY alters the indexes DSN SCT02, DSNLUX01, DSNLUX02, and DSNLLX02 to type 1 with more than one subpage. In a data sharing environment, there cannot be inter-DB2 R/W interest on type 1 indexes with more than one subpage (they cannot become *group buffer pool dependent*). This means that any read or update request that causes inter-DB2 R/W interest on these directory indexes is denied with a 'resource unavailable' condition.

For directory indexes, only type 2 indexes can have full R/W sharing among data sharing members.

Severity: 4 (warning)

System Action: Processing continues.

User Response: With very few exceptions, indexes on the directory will have inter-DB2 R/W interest if there are two or more members in your DB2 data sharing group. Use CATMAINT CONVERT TO TYPE 2 DIRECTORY to convert the indexes to type 2 if you plan to have two or more DB2 members.

DSNU784I *csect-name* **CATMAINT operation - CATALOG CONTAINS UNSUPPORTED OBJECTS: *error-text* OBJECT NAME - *object-name*, CREATOR - *creator***

Explanation: The CATMAINT utility halted because the catalog contains an unsupported object/item (indicated by *error-text*):

- CATALOG CONTAINS TYPE 1 INDEXES

Severity: 8 (error)

System Action: Utility processing halts. No SYSABEND dump or SVC dump is requested.

User Response: Any unsupported objects/items should be removed from the DB2 catalog in the previous release. The DSNTIJPM and DSNTESQ jobs can be used to identify any unsupported objects that are found in a subsystem. Remove any unsupported objects in the DB2 catalog and retry the failing CATMAINT *operation*. This message is followed by an abend 04E RC 00E40601.

DSNU785I *csect-name* - **PAGE=*page-number* IS INVALID FOR REASON=*reason-code*, EXPECTED VALUE=*expected-value*, ACTUAL VALUE=*actual-value***

Explanation: The CHECK LOB utility found the LOB table space page numbered *page-number* was invalid for reason *reason-code*. *reason-code* can be in the form: *reason1*, *reason2*. This reason code is supplied for serviceability only.

System Action: Utility returns completion code=4. LOB table space is set *check pending*.

Programmer Response: Notify the system programmer.

System Programmer Response: Notify the IBM Service Representative. Be prepared to provide the message number, reason code, and dump of the LOB table space page.

DSNU787I *csect-name* - **LOB WITH ROWID=*rowid* VERSION=*version* PAGE=*page* IS IN ERROR FOR REASON=*reason-code* EXPECTED VALUE=*expected-value* ACTUAL VALUE=*actual-value***

Explanation: The CHECK LOB utility found that the LOB with ROWID *rowID* and VERSION *version* is in error for reason *reason-code*. The error was found in page *page* of the LOB table space. This reason code is supplied for serviceability only.

EXPECTED VALUE is the *expected-value* of the condition that is checked by the CHECK LOB utility. ACTUAL VALUE is the *actual-value* of the condition.

System Action: Utility returns completion code=4. LOB table space is set *check pending*.

Programmer Response: Notify the system programmer.

System Programmer Response: Notify the IBM Service Representative. Be prepared to provide the message number and reason code.

DSNU790I *csect-name* *utility-name* *option* **IS NOT ALLOWED WHEN THERE ARE OUTSTANDING UTILITIES STARTED FROM PRIOR RELEASES.**

Explanation: The utility to be executed may have conflicts with other outstanding utilities started from prior releases.

utility-name is the name of the utility that detected the conflict.

option is the option specified to the utility that detected the conflict.

System Action: The request is rejected.

User Response: Use the DISPLAY UTILITY command to see what utilities are outstanding. Issue the TERM UTILITY command on the same release as the release on which the outstanding utility was started.

DSNU795I *csect-name* - **CHECKLOB PHASE COMPLETE - ELAPSED TIME=*time***

Explanation: The CHECK LOB utility CHECKLOB phase was completed with the elapsed time of *time*.

Severity: 0 (informational)

System Action: The CHECKLOB phase is completed.

DSNU796I *csect-name* - **REPRTLOB PHASE COMPLETE - ELAPSED TIME=*time***

Explanation: The CHECK LOB utility REPRTLOB phase was completed with the elapsed time of *time*.

Severity: 0 (informational)

System Action: The REPRTLOB phase is completed.

DSNU805I *csect-name* - **TABLE=*table_name* COLUMN=*column_name* IS OUT OF SYNCH ROWID=*rowid* VERSION=*version***

Explanation: The CHECK DATA utility found a base table row with ROWID, *rowid*, in table, *table_name*. The LOB column named *column_name* in the base table is out of synch with the LOB table space. The *version* reported is from the index on the auxiliary table.

System Action: If **AUXERROR REPORT** was specified, this error is reported only. The base table space is set to a Aux Check Pending state.

If **AUXERROR INVALIDATE** was specified, the LOB column is set invalid. The base table space is set to an Aux Warning state.

Utility returns completion code=4.

Programmer Response: CHECK DATA relies on information in LOB table space and in the auxiliary index being correct. Before running CHECK DATA to check auxiliary columns, first run CHECK LOB and then run REBUILD INDEX or CHECK INDEX. CHECK LOB ensures the validity of the LOB table space. REBUILD INDEX or CHECK INDEX ensures the validity of the auxiliary index.

If **AUXERROR REPORT** was specified, run the CHECK DATA utility with **AUXERROR INVALIDATE** to set the base table column invalid.

If **AUXERROR INVALIDATE** was specified, use SQL to update the LOB column or delete the base table row. Rerun the CHECK DATA utility with **AUXERROR INVALIDATE** specified. If all Auxiliary Column Check errors were corrected, Aux Warning will be reset.

The REPAIR utility can be used to reset the Aux Warning state.

DSNU806I *csect-name* - **TABLE=table_name**
COLUMN=column_name WAS SET
INVALID ROWID=rowid
VERSION=version

Explanation: The CHECK DATA utility with **AUXERROR INVALIDATE** specified, set the LOB column named *column_name* invalid. The LOB column was in the row with ROWID, *rowid* in the table named *table_name*. The version for the LOB column was *version*.

System Action: Utility returns completion code=4. The base table space is set to a Aux Warning state.

Programmer Response: None

Use SQL to update the LOB column or delete the base table row. Rerun the CHECK DATA utility with **AUXERROR INVALIDATE** specified. If all Auxiliary Column Check errors were corrected, Aux Warning will be reset.

The REPAIR utility can be used to reset the Aux Warning state.

DSNU807I *csect-name* - **TABLE=table_name**
COLUMN=column_name WAS SET
VALID ROWID=rowid VERSION=version

Explanation: The CHECK DATA utility with **AUXERROR INVALIDATE** specified, set the LOB column named *column_name* valid. The LOB column was in the row with ROWID, *rowid* in the table named *table_name*. The version for the LOB column was *version*.

System Action: Utility returns completion code=4.

Programmer Response: None. If all Auxiliary Column Check errors were corrected, Aux Warning will be reset.

DSNU809I *csect-name* - **TABLE=table_name**
COLUMN=column_name IS MISSING IN
INDEX index-name ROWID=rowid
VERSION=version

Explanation: The CHECK DATA utility found a record in the table named *table-name* in the row with a ROWID of *rowid*. The column named *column-name* did not have an index entry in the on the auxiliary index named *index-name*. The version for the LOB column was *version*.

System Action: If **AUXERROR REPORT** was specified, this error is reported only. The base table space is set to an Aux Check Pending state.

If **AUXERROR INVALIDATE** was specified, the LOB column is set invalid. The base table space is set to an Aux Warning state.

Utility returns completion code=4.

Programmer Response: CHECK DATA relies on information in LOB table space and in the auxiliary index being correct. Before running CHECK DATA to check auxiliary columns, first run CHECK LOB and then run REBUILD INDEX or CHECK INDEX. CHECK LOB ensures the validity of the LOB table space. REBUILD INDEX or CHECK INDEX ensures the validity of the auxiliary index.

If **AUXERROR REPORT** was specified, run the CHECK DATA utility with **AUXERROR INVALIDATE** to set the base table column invalid.

If **AUXERROR INVALIDATE** was specified, use SQL to update the LOB column or delete the base table row. Rerun the CHECK DATA utility with **AUXERROR INVALIDATE** specified. If all Auxiliary Column Check errors were corrected, Aux Warning will be reset.

The REPAIR utility can be used to reset the Aux Warning state.

DSNU811I *csect-name* - **TABLE=table_name**
COLUMN=column_name IS INVALID
ROWID=rowid VERSION=version

Explanation: The CHECK DATA utility found a record in the table named *table-name* in the row with ROWID *rowid*. The column named *column-name* was marked invalid by a prior execution of the CHECK DATA utility with **AUXERROR INVALIDATE** specified. The version for the LOB column was *version*.

System Action: Utility returns completion code=4. The base table space is set to a Aux Warning state.

Programmer Response: If **AUXERROR INVALIDATE** was specified, use SQL to update the LOB column or delete the base table row. Rerun the CHECK DATA utility with **AUXERROR INVALIDATE** specified. If all Auxiliary Column Check errors were corrected, Aux Warning will be reset.

The REPAIR utility can be used to reset the Aux Warning state.

DSNU813I *csect-name* - **LOB IN TABLE SPACE=*lob_table_space_name* WITH ROWID=*rowid* AND VERSION=*version* HAS NO BASE TABLE ROW**

Explanation: The CHECK DATA utility found a LOB in the LOB table space named *lob_table_space_name* but did not find a row in the base table for this LOB. The LOB has a ROWID of *rowid* and version of *version*.

System Action: Utility returns completion code=4.

Programmer Response: CHECK DATA relies on information in the index on the auxiliary table and LOB table space being correct. Before running CHECK DATA to check auxiliary columns, first run CHECK LOB and then run REBUILD INDEX or CHECK INDEX. CHECK LOB ensures the validity of the LOB table space. REBUILD INDEX or CHECK INDEX ensures the validity of the auxiliary index.

The LOB can be deleted using the REPAIR utility. Specify LOCATE ROWID VERSION DELETE.

DSNU814I *csect-name* - **TABLE=*table_name* COLUMN=*column_name* IS ZERO OR NULL BUT ENTRY IN INDEX *index-name* FOUND ROWID=*rowid* VERSION=*version***

Explanation: The CHECK DATA utility found a record in the table named *table-name* in the row with a ROWID of *rowid*. The column named *column-name* was indicated null or zero length, but an index entry with the same ROWID was found in the index on the auxiliary table named *index-name*. The version for the LOB column was *version*.

System Action: This is an informational message only. The fact that a LOB column entry exists in the index on the auxiliary table when the LOB column is marked null or has a null length does not hinder LOB column processing.

If **AUXERROR INVALIDATE** was specified, the LOB column is not set invalid for this error.

Utility returns completion code=4.

Programmer Response: CHECK DATA relies on information in the index on the auxiliary table and LOB table space being correct. Both CHECK LOB, to ensure the validity of the LOB table space, and RECOVER INDEX or CHECK INDEX, to ensure the validity of the index on the auxiliary table, should be executed in that order prior to the execution of CHECK DATA with auxiliary column checking.

The LOB can be deleted from the LOB table space by using **REPAIR LOCATE TABLESPACE ROWID DELETE**

DSNU815I *csect-name* - **TABLESPACE *table-space-name* IS IN AUX CHECK PENDING STATE**

Explanation: The CHECK DATA utility found *auxiliary check* errors. **AUXERROR REPORT** was specified, so errors were left as found.

Auxiliary check pending is a prohibitive state.

Previous error messages report the errors found.

System Action: Utility returns completion code=8.

Programmer Response: Use the CHECK DATA with **AUXERROR INVALIDATE**. This will modify the *auxiliary check* errors so they can be corrected and set the state of the table space to *auxiliary warning*.

After running CHECK DATA with **AUXERROR INVALIDATE**, use SQL to update the LOB column or delete the base table row. Rerun the CHECK DATA utility with **AUXERROR INVALIDATE** specified. If all *auxiliary check* errors were corrected, *auxiliary warning* will be reset.

The *auxiliary check pending* state can also be reset using REPAIR with **SET NOAUXCHKP**. Resetting *auxiliary check pending* with REPAIR will have unpredictable results.

DSNU816I *csect-name* - **TABLESPACE *table-space-name* IS IN AUX WARNING STATE**

Explanation: The CHECK DATA utility found *auxiliary check* errors. **AUXERROR INVALIDATE** was specified, so LOB columns in error were marked invalid.

Auxiliary warning is a non-prohibitive state. Updating the LOB column or deleting the row containing the LOB column by SQL is permitted. Valid LOBs may be accessed, however any attempt to retrieve an invalid modified LOB column by SQL will result in a -904 return code.

Previous error messages report the errors found.

Severity: 0 (informational)

System Action: Processing continues.

Programmer Response: Use SQL to update or delete the LOB columns in error. Use CHECK DATA with **AUXERROR INVALIDATE** to verify all errors were corrected and to reset the *auxiliary warning* state.

The *auxiliary warning* state can also be reset using REPAIR with **SET NOAUXWARN**.

DSNU830I *csect-name* - **INDEX=*index-name* IS IN REBUILD PENDING STATE**

Explanation: If the RECOVER utility issued this message, the corresponding table space to this index was recovered to a point in time with keyword TOCOPY,

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TOLOGPOINT, or TORBA. Thus, the index was placed in rebuild pending status.

If the REBUILD INDEX utility issued this message, the index is in rebuild pending status. Either duplicate index entries existed during the BUILD phase of the REBUILD INDEX, or invalid KEY/RIDs, which do not belong to the partition of the cluster index, were detected. The duplicate index entries or invalid KEY/RID entries must be resolved before starting the REBUILD INDEX utility again to rebuild the index and remove the index from rebuild pending status.

If the REORG utility with SHRLEVEL REFERENCE or CHANGE (or -TERM UTILITY) issued this message, the index is in rebuild pending status. During the renaming of a data set during REORG, either a data set with the source name did not yet exist or a data set with the target name already existed.

Severity: 4 (warning) or 8 (error)

User Response: If the RECOVER or REORG utility (or -TERM UTILITY) issued this message, use the REBUILD INDEX utility to rebuild this index.

If the REBUILD INDEX utility issued this message resolve the duplicate index entries or invalid keys and rerun the REBUILD INDEX utility.

DSNU831I *csect-name* ALL INDEXES OF TABLESPACE= *table space-name* ARE IN REBUILD PENDING

Explanation: The RECOVER TORBA, TOLOGPOINT, or TOCOPY utility issues this message to inform the user of the state of all indexes belonging to the recovered table space. All indexes were put in rebuild pending status to prevent data and index inconsistency. All indexes should be rebuilt before they are used.

System Action: The RECOVER utility completed successfully.

Severity: 4 (warning)

User Response: Use the REBUILD utility with the ALL option to rebuild all indexes over the recovered table space.

DSNU832I *csect-name* - INDEX= *creator.index-name* PART= *partition number* IS IN REBUILD PENDING STATE

Explanation: If the RECOVER utility issued this message, one partition of a partitioned table space is being recovered to a point in time with keyword TOCOPY, TOLOGPOINT, or TORBA. The corresponding index for that partition was placed in rebuild pending status.

If the REBUILD INDEX utility issued this message, the index or the partition of a cluster index is in rebuild pending status. Either duplicate index entries existed during the BUILD phase of the REBUILD INDEX or

INDEX PART, or invalid KEY/RIDs, which do not belong to the partition of the cluster index, were detected. The duplicate index entries or invalid KEY/RID entries must be resolved before starting the REBUILD INDEX utility again to rebuild the index and remove the index from rebuild pending status.

If the REORG utility with SHRLEVEL REFERENCE or CHANGE (or -TERM UTILITY) issued this message, one partition of a partitioned index was placed in rebuild pending status. During the renaming of a data set during REORG, either a data set with the source name did not yet exist or a data set with the target name already existed.

Severity: 4 (warning) or 8 (error)

User Response: If the RECOVER or REORG utility (or -TERM UTILITY) issued the message, rebuild this index with the REBUILD INDEX utility.

If the REBUILD INDEX utility issued this message resolve duplicate index entries or invalid keys and rerun the REBUILD INDEX utility.

DSNU833I *csect-name* - UNABLE TO RECOVER *object_type object_name* DUE TO ALTER COLUMN

Explanation: RECOVER utility is unable to recover the index or index space as requested because an ALTER COLUMN VARCHAR has been performed. The current column definition is no longer consistent with the image copy and log records which would be used to perform the requested recovery.

Severity: 8 (error)

User Response: Use the REBUILD INDEX utility to rebuild the index from the tablespace.

DSNU834I *csect-name* - UNABLE TO RECOVER *object_type object_name* DSNUM *dsnum* DUE TO ALTER COLUMN

Explanation: RECOVER utility is unable to recover the index or index space partition as requested because an ALTER COLUMN VARCHAR has been performed. The current column definition is no longer consistent with the image copy and log records which would be used to perform the requested recovery.

Severity: 8 (error)

User Response: Use the REBUILD INDEX utility to rebuild the index partition from the tablespace.

DSNU860I *csect-name* DIAGNOSE UTILITY COMPLETE

Explanation: This message is issued in response to the normal completion of the DIAGNOSE utility.

Severity: 0 (informational)

System Action: This message indicates the normal completion of the DIAGNOSE utility. Processing continues to the next utility statement in the utility job step.

DSNU861I *csectname* **DISPLAY MEPL**

Explanation: This is the header message for output of the DIAGNOSE DISPLAY MEPL function. The contents of the MEPL is dumped to SYSPRINT.

Severity: 0 (informational)

System Action: This message indicates the beginning of DIAGNOSE DISPLAY MEPL processing.

DSNU862I **DISPLAY AVAILABLE UTILITIES. MAP:**
bit-map

Explanation: This message is the end-result of a DIAGNOSE DISPLAY AVAILABLE control statement. It displays the utilities that are available on this subsystem. The message contains a machine-readable bit-map, and precedes a table of utility names. They are two representations of the same information. An available utility is represented by the utility name that appears in the table and a "1" in the corresponding bit position in the bit-map. An unavailable utility is represented by a blank table entry and a "0" in the corresponding bit position in the bit-map.

Utilities may be unavailable if separately-priced features JDB771K and/or JDB771M are not installed, or installed improperly.

The table position and bit position are fixed for any given utility, and maintenance cannot alter them. Bit positions correspond to table entries when you read the table across each row, left to right, starting with the top row. For example, bit 1 corresponds to CATMAINT, bit 2 to CHECK, and bit 9 to OPTIONS.

The following example shows the partial output of this message. Due to space constraints, the sample has been truncated. The actual table contains eight columns of identity names:

DSNU862I DSNUDIAG - DISPLAY AVAILABLE UTILITIES.
MAP: 11111111111111111100000000000000

```

-----
|CATMAINT|CHECK   |COPY    |DIAGNOSE|...
|OPTIONS |QUIESCE|REBUILD|RECOVER  |...
|STOSPACE|TEMPLATE|UNLOAD  |         |...
-----

```

Severity: 0 (informational)

System Action: The DIANGOSE DISPLAY AVAILABLE utility control statement has completed normally.

DSNU863I *csect-name* **DISPLAY OBD**
dbname.tsname

Explanation: This message is the heading message for DIAGNOSE DISPLAY OBD output.

Severity: 0 (informational)

System Action: This message indicates the start of the output for the DIAGNOSE DISPLAY OBD function.

DSNU864I *csect-name* **DISPLAY OBD, DBID=nn**
OBID=nn OBD TYPE=type

Explanation: This message is the heading message for the OBD being displayed.

Severity: 0 (informational)

System Action: This message identifies the OBD being displayed.

DSNU865I *csect-name* **DISPLAY OBD**
dbname.tsname **COMPLETE**

Explanation: This message is issued in response to normal completion of DISPLAY OBD processing.

Severity: 0 (informational)

System Action: This message indicates the end of DISPLAY OBD processing.

DSNU866I *csect-name* **DISPLAY SYSUTIL JOB**
INFORMATION

Explanation: This message is the header message for the SYSUTIL JOB INFORMATION section of the DIAGNOSE DISPLAY SYSUTIL output. This section displays the job information area of the SYSUTIL record and contains information which identifies the utility the SYSUTIL record is referencing.

Severity: 0 (informational)

System Action: This message identifies the SYSUTIL JOB INFORMATION section of the DIAGNOSE DISPLAY SYSUTIL output.

DSNU867I *csect-name* **DISPLAY SYSUTIL**
CHECKPOINT/RESTART INFORMATION

Explanation: This message is the header message for the SYSUTIL UTILITY CHECKPOINT/RESTART INFORMATION section of the DIAGNOSE DISPLAY SYSUTIL output. This section displays the utility checkpoint/restart area of the SYSUTIL record and contains information pertaining to utility processing needed for the restart of the utility.

Severity: 0 (informational)

System Action: This message identifies the SYSUTIL UTILITY CHECKPOINT/RESTART INFORMATION section of the DIAGNOSE DISPLAY SYSUTIL output.

DSNU868I *csect-name* **DISPLAY SYSUTIL UTILITY
DEPENDENT AREA**

Explanation: This message is the header message for the SYSUTIL UTILITY DEPENDENT INFORMATION section of the DIAGNOSE DISPLAY SYSUTIL output. This section displays the utility dependent area of the SYSUTIL record and contains information particular to the utility which the SYSUTIL record is referencing.

Severity: 0 (informational)

System Action: This message identifies the SYSUTIL UTILITY DEPENDENT INFORMATION section of the DIAGNOSE DISPLAY SYSUTIL output.

DSNU869I *csect-name* **DISPLAY SYSUTIL
COMPLETE**

Explanation: This message is issued in response to normal completion of DISPLAY SYSUTIL processing.

Severity: 0 (informational)

System Action: This message indicates the end of DISPLAY SYSUTIL processing.

DSNU870I *csect-name* **NO SYSUTIL RECORD
FOUND**

Explanation: This message is issued if no SYSUTIL records are found when DISPLAY SYSUTIL is specified.

Severity: 4 (warning)

System Action: This message indicates the end of DISPLAY SYSUTIL processing.

DSNU871I *csectname* **DISPLAY DBET DATABASE
dbname**

Explanation: This message is the heading for display output of the database exception table (DBET) entry associated with database *dbname*.

Severity: 0 (informational)

System Action: DIAGNOSE DISPLAY DBET processing started for the named database.

DSNU872I *csectname* **DISPLAY DBET TABLE
SPACE tsname**

Explanation: This message is the heading for display output of the database exception table (DBET) entry associated with table space *tsname*.

Severity: 0 (informational)

System Action: DIAGNOSE DISPLAY DBET processing started for the named table space.

DSNU873I *csectname* **DISPLAY DBET INDEX
index-name**

Explanation: This message is the heading for display output of the database exception table (DBET) entry associated with index *index-name*.

Severity: 0 (informational)

System Action: DIAGNOSE DISPLAY DBET processing started for the named index.

DSNU874I *csectname* **NO DBET ENTRY FOUND
FOR THE SPECIFIED OBJECT**

Explanation: There is no database exception table (DBET) entry associated with the specified object.

Severity: 4 (warning)

System Action: Processing continues normally.

DSNU875I *csectname* **DIAGNOSE WAIT AT
MESSAGE=msgno INSTANCE=nn CORR
ID=id1 CONN ID=id2 REPLY TO CONT**

Explanation: The DIAGNOSE WAIT function was invoked to wait at a specified message 'msgno' on the nn'th time that message was issued. The CORR ID is the correlation identifier of the thread associated with the waiting application. The CONN ID is the connection identifier of the thread.

Severity: 4 (warning)

System Action: Processing is stopped until the user responds to this message.

User Response: See operator response.

Operator Response: After diagnosis procedure in progress is completed, reply to this message to continue execution. Any reply is valid.

DSNU876I *csectname* **DIAGNOSE WAIT AT
TRACEID=X'trcid' INSTANCE=nn CORR
ID=id1 CONN ID=id2 REPLY TO CONT**

Explanation: The DIAGNOSE WAIT function was invoked to wait at a specified traceid 'trcid' on the nn'th time that traceid was encountered. The CORR ID is the correlation identifier of the thread associated with the waiting application. The CONN ID is the connection identifier of the thread.

Severity: 4 (warning)

System Action: Processing is stopped until the user responds to this message.

User Response: See operator response.

Operator Response: After diagnosis procedure in progress is complete, reply to this message to continue execution. Any reply is valid.

DSNU877I event modulename+offset

Explanation: Event 'event' occurred at module 'modulename' plus 'offset'. The DIAGNOSE utility issues this message to aid in diagnosing utility problems.

Severity: 0 (informational)

System Action: Processing continues normally.

DSNU900I csect-name - DBD X'xxxx'
COMPARISON STARTING

Explanation: This message marks the start of a DBD comparison for the REPAIR DBD TEST or REPAIR DBD DIAGNOSE utility. The DBID of the DBD being compared against the DB2 Catalog is 'xxxx'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU901I csect-name - OBD X'xxxx' obd-type HAS
THE FOLLOWING DIFFERENCES

Explanation: This message marks the start of an OBD comparison for the REPAIR DBD TEST or REPAIR DBD DIAGNOSE utility. This message is displayed when a difference in the OBDs has been detected. The OBD of the OBD being compared against the DB2 catalog is 'xxxx'. The type of OBD being displayed is 'obd-type'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU902I csect-name - EXISTING OBD AT
OFFSET X'xxxxxxxx' IN EXISTING DBD

Explanation: Following this message is a hexadecimal dump of the OBD as it exists in the DSNDB01.DBD01 page set. In the message, 'xxxxxxxx' is the hexadecimal offset from the beginning of the existing DBD as it appears later in the REPAIR DBD DIAGNOSE output.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU903I csect-name - REBUILT OBD AT OFFSET
X'xxxxxxxx' IN REBUILT DBD

Explanation: Following this message is a hexadecimal dump of the OBD that was rebuilt from the DB2 Catalog. In the message, 'xxxxxxxx' is the hexadecimal offset from the beginning of the rebuilt DBD as it appears later in the REPAIR DBD DIAGNOSE output.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU904I csect-name - EXISTING VALUE X'xx.xx'

Explanation: This message shows a hexadecimal string which is the value of a field in the OBD as it exists on the DSNDB01.DBD01 page set. The hexadecimal string is 'xx.xx'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU905I csect-name - REBUILT VALUE X'xx.xx'

Explanation: This message shows a hexadecimal string which is the value of a field in the OBD which was rebuilt from the DB2 catalog. The hexadecimal string is 'xx.xx'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU906I csect-name - EXISTING VALUE 'cc.cc'

Explanation: This message shows a character string which is the value of a field in the OBD as it exists on the DSNDB01.DBD01 page set. The character string is 'cc.cc'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU907I csect-name - REBUILT VALUE 'cc.cc'

Explanation: This message shows a character string which is the value of a field in the OBD which was rebuilt from the DB2 catalog. The character string is 'cc.cc'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU908I csect-name - EXISTING OBD IS obd-type

Explanation: This message shows the OBD type of the OBD which exists on the DSNDB01.DBD01 page set.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU909I csect-name - REBUILT OBD IS obd-type

Explanation: This message shows the OBD type of the OBD which was rebuilt from the DB2 catalog.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU910I *csect-name* - EXISTING DBD

Explanation: Following this message is a hexadecimal dump of the DBD which exists on the DSNDB01.DBD01 page set.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU911I *csect-name* - REBUILT DBD

Explanation: Following this message is a hexadecimal dump of the DBD which was rebuilt from the DB2 Catalog.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU912I *csect-name - phase-completion-message*
-- *nn* **ERRORS WERE FOUND**

Explanation: This message marks the end of a processing phase in the DBD comparison for a REPAIR DBD TEST or REPAIR DBD DIAGNOSE utility. In the message, 'nn' indicates the number of errors detected while processing. Informational and warning messages are not added into the error count.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU913I *csect-name - OBD X'xxxx'*
COMPARISON COMPLETE -- nn
ERRORS WERE FOUND

Explanation: This message marks the end of an OBD comparison for the REPAIR DBD TEST or REPAIR DBD DIAGNOSE utility. This message is displayed only when a difference has been detected. If there is no difference, this message will not be displayed. The OBID of the OBD being compared against the DB2 catalog is 'xxxx'. The number of errors in this OBD is 'nn'. Informational and warning messages are not added into the error count.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU914I *csect-name - DBD X'xxxx'*
COMPARISON COMPLETE -- nn
ERRORS WERE FOUND

Explanation: This message marks the end of a DBD comparison for the REPAIR DBD TEST or REPAIR DBD DIAGNOSE utility. The DBID of the DBD being compared against the DB2 catalog is 'xxxx'. The total number of errors found in this DBD is 'nn'.

Severity: 0 (informational)

System Action: DBD checking completed.

DSNU915I *csect-name - OBD X'obid' E-X'xxxxxxx'*
R-X'yyyyyyyy' obd-description

Explanation: This message is used when listing the OBDs in the REPAIR DBD DIAGNOSE utility. The OBID of the OBD being listed is 'obid'. The offset to the OBD within the EXISTING DBD which is displayed later in the output is 'xxxxxxx'. The offset to the OBD within the REBUILT DBD which is displayed later in the output is 'yyyyyyyy'. A short description of the state of the OBD is 'obd-description'.

Severity: 0 (informational)

System Action: DBD checking completed.

DSNU916I *csect-name - OBDS DIFFER AT OFFSET*
X'xxxxxxx' field-name - INFORMATION
NOT IN DB2 CATALOG

Explanation: This message indicates the value of a field in the OBD differs from the DBD which exists on the DSNDB01.DBD01 page set and the DBD rebuilt from the DB2 catalog. This is information which is not kept in the DB2 catalog. This is an acceptable difference and does not indicate that the OBD is damaged. The hexadecimal offset from the beginning of the OBD is 'xxxxxxx'. The name of the field is 'field-name'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU917I *csect-name - DBDS DIFFER AT OFFSET*
X'xxxxxxx' field-name - INFORMATION
NOT IN DB2 CATALOG

Explanation: This message indicates that the value of a field in the DBD differs from the DBD which exists on the DSNDB01.DBD01 page set and the DBD rebuilt from the DB2 Catalog. This is information which is not kept in the DB2 catalog. This is an acceptable difference and does not indicate that the DBD is damaged. The hexadecimal offset from the beginning of the DBD is 'xxxxxxx'. The name of the field is 'field-name'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU919I *csect-name - DBD X'xxxx' OBD X'yyyy' -*
details

Explanation: This message gives detailed information about the specified OBD. The DBID of the DBD is 'xxxx'. The OBID of the OBD is 'yyyy'. A description of the error is 'details'.

Severity: 0 (informational)

System Action: DBD checking continues normally.

DSNU920I *csect-name* - OBDS DIFFER AT OFFSET
X'xxxxxxxx' field-name

Explanation: This message indicates that the value of a field in the OBD differs from the DBD which exists on the DSNDB01.DBD01 page set and the DBD rebuilt from the DB2 catalog. The DB2 Catalog and DBD/OBD are inconsistent. The hexadecimal offset from the beginning of the OBD is 'xxxxxxxx'. The name of the field is 'field-name'.

Severity: 4 (warning)

System Action: DBD checking continues normally.

DSNU921I *csect-name* - OBD X'xxxx' MISSING IN
EXISTING DBD

Explanation: This message indicates that an OBD which was rebuilt from the DB2 catalog does not exist in the DBD which exists on the DSNDB01.DBD01 page set. The DB2 catalog and DBD/OBD are inconsistent. The OBID of the missing OBD is 'xxxx'.

Severity: 4 (warning)

System Action: DBD checking continues normally.

DSNU922I *csect-name* - OBD X'xxxx' MISSING IN
REBUILT DBD

Explanation: This message indicates that an OBD in the DBD which exists on the DSNDB01.DBD01 page set does not exist in the DBD which was rebuilt from the DB2 catalog. The DB2 catalog and DBD/OBD are inconsistent. The OBID of the missing OBD is 'xxxx'.

Severity: 4 (warning)

System Action: DBD checking continues normally.

DSNU923I *csect-name*—OBDDTYPE FOR OBD
X'xxxx' DOES NOT MATCH —NO
FURTHER CHECKING DONE FOR THIS
OBD

Explanation: The object descriptor (OBD) that exists on the DSNDB01.DBD01 page set is different from the type of OBD that was rebuilt from the DB2 catalog. No further processing can be done because the fields of one OBD type are different from the fields of another. The DB2 catalog and database descriptor (DBD)/OBD are inconsistent. The object identifier (OBID) of the OBD that is inconsistent is 'xxxx'.

Severity: 4 (warning)

System Action: Checking for OBD X'xxxx' stops. Checking of the DBD continues normally.

DSNU924I *csect-name*—DBDS DIFFER AT OFFSET
X'xxxxxxxx' field-name

Explanation: The value of a field in the database descriptor (DBD) differs from the value of the corresponding field in the DBD that exists on the DSNDB01.DBD01 page set and differs from the value of the corresponding field in the DBD that was rebuilt from the DB2 catalog.

xxxxxxxx

The hex offset from the beginning of the DBD.

field-name

The name of the field.

Severity: 0 (informational)

System Action: Checking of the DBD continues normally.

DSNU925I *csect-name*—OBDDFILE AT OFFSET
X'xxxxxxxx' IN EXISTING DBD HAS
OBID X'nnnn' WHICH IS NOT A FILE
OBD

Explanation: The field that points to the first FILE OBD (OBDDFILE) in the database descriptor (DBD) that exists on the DSNDB01.DBD01 page set does not point to a FILE OBD. The DB2 catalog and DBD/OBD (object descriptor) are inconsistent.

xxxxxxxx

The hex offset from the beginning of the existing DBD.

nnnn The object identifier (OBID) of the OBD which should be a FILE OBD.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU926I *csect-name*—OBDDFILE AT OFFSET
X'xxxxxxxx' IN REBUILT DBD HAS
OBID X'nnnn' WHICH IS NOT A FILE
OBD

Explanation: The field that points to the first FILE OBD (OBDDFILE) in the database descriptor (DBD) that was rebuilt from the DB2 catalog does not point to a FILE OBD. The DB2 catalog and DBD/OBD (object descriptor) are inconsistent.

xxxxxxxx

The hex offset from the beginning of the rebuilt DBD.

nnnn The object identifier (OBID) of the OBD that should be a FILE OBD.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU927I *csect-name*—OBD X'xxxx' IS A HOLE IN EXISTING DBD

Explanation: The object descriptor (OBD) that exists on the DSNDB01.DBD01 page set has been logically deleted, OBDHOLE = '1'B. The DB2 catalog and database descriptor (DBD)/OBD are inconsistent. The object identifier (OBID) of the OBD that is a hole is 'xxxx'.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU928I *csect-name*—OBD X'xxxx' IS A HOLE IN REBUILT DBD

Explanation: The object descriptor (OBD) that was rebuilt from the DB2 catalog has been logically deleted, OBDHOLE = '1'B. The DB2 catalog and database descriptor (DBD)/OBD are inconsistent. The object identifier (OBID) of the OBD that is a hole is 'xxxx'.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU929I *csect-name*—OBD FIELD *field-name* HAS VALUE OUT OF RANGE AT OFFSET X'xxxxxxxx' IN OBD X'nnnn'

Explanation: The object descriptor (OBD) field 'field-name' has an unexpected value. The DB2 catalog and database descriptor (DBD)/OBD are inconsistent.

field-name The name of the field in the OBD.
xxxxxxxx The hex offset from the beginning of the OBD.
nnnn The object identifier (OBID) of the OBD.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU930I *csect-name*—INDEX *index-name* (OBD X'xxxx') MUST BE REBUILT

Explanation: The index 'index-name' must be either recovered or dropped and recreated to ensure that the index is consistent with the description in the INDEX FANSET OBD. The object descriptor (OBD) is not damaged. However, if the index is not either recovered or dropped and recreated, incorrect output can be produced when the index is used as an access path.

index-name The name of the index found in SYSIBM.SYSINDEXES.
xxxx The object identifier (OBID) of the OBD.

Severity: 8 (error)

System Action: Checking of the DBD continues normally.

DSNU931I *csect-name* - OBDDMAX FIELD OF DBD IS TOO LARGE

Explanation: The OBDDMAX field (maximum number of ID in the DBD) is too large. It is larger than the largest possible number of ID based upon the DBD size.

Severity: 8

System Action: Checking of the DBD continues but using the largest possible number of ID instead of the incorrect OBDDMAX.

DSNU932I REPAIR CAN NOT DROP THE DATABASE.

Explanation: The system cannot drop the database because the name that was specified for the database and the DBID that was specified do not match.

System Action: The utility job is halted.

User Response: Correct the utility statement, and resubmit the job.

DSNU935I *csect-name* DATABASE *database-name* IS NOT STARTED FOR UTILITY PROCESSING ONLY

Explanation: This message is issued when the REPAIR utility with the DBD option is run on a database that is not started for utility processing only.

Severity: 8

System Action: REPAIR DBD terminated.

User Response: Stop the database. Then start the database with the ACCESS(UT) option. Resubmit the REPAIR DBD job.

DSNU936I *csect-name* DATABASE *database-name* IS IN USE

Explanation: This message is issued when the REPAIR utility with the DBD option is run on a database that is in use by others.

Severity: 8

System Action: REPAIR DBD terminated.

User Response: Wait until all users are finished, then resubmit the REPAIR DBD job.

DSNU938I *csect-name*—OBD X'xxxx' HAD DIFFERENCES WHICH WERE NOT IN A NAMED FIELD

Explanation: There is a difference between the object descriptor (OBD) in the database descriptor (DBD) that

exists on the DSNDB01.DBD01 page set and the DBD that was rebuilt from the DB2 catalog. This difference does not exist in a named field. Therefore, the detailed search by field name fails to find the difference. The DB2 catalog and DBD/OBD are inconsistent. The object identifier (OBID) of the OBD in error is 'xxxx'.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU939I *csect-name*—**DBD HEADER HAD DIFFERENCES WHICH WERE NOT IN A NAMED FIELD**

Explanation: There is a difference between the DBD header in the DBD that exists on the DSNDB01.DBD01 page set and the DBD that was rebuilt from the DB2 catalog. This difference does not exist in a named field. Therefore, the detailed search by field name fails to find the difference. The DB2 catalog and database descriptor (DBD)/object descriptor (OBD) are inconsistent.

Severity: 4 (warning)

System Action: Checking of the DBD continues normally.

DSNU940I *csect-name* **AUTHID OR LUNAME NOT BLANK FOR FOLLOWING SYSPROCEDURES ROW:**

Explanation: A SYSPROCEDURES row contains an AUTHID or LUNAME value. AUTHID and LUNAME are not supported attributes for DB2 Version 6 stored procedures. DSNU944I messages follow that show the contents of the SYSPROCEDURES row.

System Action: The SYSPROCEDURES row is not migrated. SYSPROCEDURES migration continues with the next row.

System Programmer Response: Execute a CREATE PROCEDURE statement to add the stored procedure definition. A schema name may be specified in place of AUTHID and LUNAME in the stored procedure definition.

DSNU941I *csect-name* **CREATE PROCEDURE FAILED WITH SQLCODE=*sqlcode* SQLSTATE=*sqlstate***

Explanation: The migration of a SYSPROCEDURES row has failed. The SQLCODE and SQLSTATE values indicate the type of error that occurred.

System Action: The SYSPROCEDURES row is not migrated. The SYSPROCEDURES migration continues with the next row.

System Programmer Response: Check the stored procedure attributes and parameters that are listed in

the DSNU942I message, which follows this message.

Execute a CREATE PROCEDURE statement with correct attributes and parameters to add the stored procedure definition.

DSNU942I *csect-name* **create_procedure_statement**

Explanation: This message follows message DSNU941I when the migration of a SYSPROCEDURES row fails. This message contains the CREATE PROCEDURE statement that DB2 used for migration of the SYSPROCEDURES row.

System Action: The SYSPROCEDURES row is not migrated. SYSPROCEDURES migration continues with the next row.

System Programmer Response: Use the CREATE PROCEDURE statement in this message and the SQLCODE and SQLSTATE information in message DSNU941I to diagnose the error.

DSNU944I *csect-name* **sysprocedures_column_name - sysprocedures_column_value**

Explanation: This message lists a column value for a SYSPROCEDURES row that could not be migrated. This message follows message DSNU940I.

System Action: The SYSPROCEDURES row is not migrated. SYSPROCEDURES migration continues with the next row.

DSNU945I *csect-name* **CREATE SUCCESSFUL FOR PROCEDURE *procedure_name***

Explanation: A SYSPROCEDURES row with a value of *procedure_name* in column PROCEDURE has been successfully migrated.

System Action: SYSPROCEDURES migration continues normally.

DSNU971I *csect-name* **TABLESPACE *dbname.tsname* IS CHECK PENDING OR AUX CHECK PENDING CORRELATION-ID *id1* CONNECTION-ID *id2* LUW-ID *id3***

Explanation: This message is sent to the console when TABLESPACE *tsname* is set to CHECK pending or auxiliary CHECK pending state. The CORRELATION-ID *id1* is the correlation identifier of the thread requesting CHECK pending or auxiliary CHECK pending status. Correlation IDs beginning with 'Onn', where *nn* is a number from 01 to 28, identify system agents. The CONNECTION-ID *id2* is the correlation identifier of the thread. The LUW-ID *id3* is the logical-unit-of-work identifier of the thread. If the LUW-ID is an '*', the thread has no LUW-ID. If it is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which

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can be used in place of logical-unit-of-work-id in any DB2 command that accepts logical-unit-of-work-id as input.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for a discussion of the CHECK pending operation.

DSNU972I *csect-name* **CATALOG UPDATING FAILURE WHILE SETTING OR RESETTING CHECK PENDING CORRELATION-ID *id1* CONNECTION-ID *id2***

Explanation: When the check pending state is set on or off, the updating of the catalog tables (SYSTABLESPACE, SYSTABLES, and SYSTABLEPART) fails. The CORRELATION-ID, 'id1', is the correlation identifier of the thread associated with the application requesting that the check pending state be set on or off. The CONNECTION-ID, 'id2', is the correlation identifier of the application. Correlation IDs beginning with '0nn', where 'nn' is a number from 01 to 28, identify system agents.

Severity: 0 (informational) or 4 (warning)

System Action: Processing continues.

Problem Determination: The utility being processed requested the setting of check pending either on or off. The updating of the STATUS column of SYSTABLESPACE, and of the CHECKFLAG and CHECKRID columns of SYSTABLES and SYSTABLEPART failed. Processing continues normally. However, those columns for the rows being updated now contain invalid values. Subsequent utility processing ignores these values, and the next setting or resetting of check pending for that table space corrects the error in one of the following ways:

- If the table space is set to check pending and the catalog fields are in error, the scope of check pending is escalated in the catalog. (The STATUS column of SYSTABLESPACE is set to 'P', and the CHECKFLAG and CHECKRID columns of SYSTABLES and SYSTABLEPART are set to 'C' and binary zeros.)
- If the table space is set to not check pending and the catalog fields are in error, the scope of check pending is set off in the catalog. (The STATUS column of SYSTABLES is set to an 'A', and the CHECKFLAG and CHECKRID columns of SYSTABLES and SYSTABLEPART are set to blanks.)

After the catalog fields are corrected, the setting or resetting of check pending continues as specified.

Usually message DSNT500I or DSNT501I is also issued, because the probable cause of the error is RESOURCE UNAVAILABLE. If the reason for the failure

was not RESOURCE UNAVAILABLE, an SVC dump is requested and processing continues normally. To determine the cause of the failure, refer to the dump listing and the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32

DSNU973I *csect-name* **CHECK PENDING, AUX CHECK PENDING OR BOTH HAS BEEN RESET FOR TABLESPACE *dbname.tsname* CORRELATION-ID *id1* CONNECTION-ID *id2* LUW-ID *id3***

Explanation: This message is sent to the console when CHECK pending, auxiliary CHECK pending or both states were reset for TABLESPACE *tsname*. The CORRELATION-ID *id1* is the correlation identifier of the thread requesting that the CHECK pending state, the auxiliary CHECK pending state or both states be reset. Correlation IDs beginning with '0nn', where *nn* is a number from 01 to 28, identify system agents. The CONNECTION-ID *id2* is the correlation identifier of the thread. The LUW-ID *id3* is the logical-unit-of-work identifier of the thread. If the LUW-ID is an '*', the thread has no LUW-ID. If it is not an '*', the value is a logical-unit-of-work-id that is assigned to the thread followed by an '=' sign and a token value, which can be used in place of the logical-unit-of-work-id in any DB2 command that accepts a logical-unit-of-work-id as input.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for a discussion about clearing the CHECK pending status.

DSNU993I *csect-name* **IMAGE COPY RESTORE TERMINATED**

Explanation: Catalog and directory initialization (image copy restore) did not complete successfully.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Examine other error messages associated with this job.

DSNU994I *csect-name* **IMAGE COPY RESTORE COMPLETED SUCCESSFULLY**

Explanation: Catalog and directory initialization (image copy restore) completed successfully.

Severity: 0 (informational)

DSNU995I *csect-name* **VSAM PUT
ERROR,RPLERREG = return-code,
RPLERRCD = reason-code**

Explanation: VSAM PUT failed with the indicated *return-code* and *reason-code*.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Notify system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedure. Refer to *z/OS DFSMS: Macro Instructions for Data Sets*. See also *MVS/DFP V3R3 Diagnosis Guide* for more information about the VSAM procedures.

DSNU996I *csect-name* **VSAM OPEN ERROR,
ACBERRFLG = error-code**

Explanation: VSAM OPEN failed with the indicated *ACB error-code*.

Severity: 8 (error) if error is greater than or equal to 128; otherwise, 4 (warning)

System Action: Processing terminates if the error code is greater than or equal to 128; otherwise, processing continues normally.

User Response: Notify the system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedure. Refer to *z/OS DFSMS: Macro Instructions for Data Sets*. See also *MVS/DFP V3R3 Diagnosis Guide* for more information about the VSAM procedures.

DSNU997I *csect-name* **OUTPUT DATA SET NAME
= data-set-name**

Explanation: The indicated *data-set-name* is used for output.

Severity: 0 (informational)

DSNU998I *csect-name* **INPUT DATA SET NAME =
data-set-name**

Explanation: The indicated *data-set-name* is used for input.

Severity: 0 (informational)

DSNU999I *csect-name* **START OF IMAGE
COPYRESTORE FOR JOB job-name
step-name**

Explanation: The catalog and directory initialization (image copy restore) started.

Severity: 0 (informational)

DSNU1000I *csect-name* - **PROCESSING CONTROL
STATEMENTS IN PREVIEW MODE**

Explanation: The PREVIEW option has been specified either on the OPTIONS control statement or as a JCL parameter. Control statements will be previewed in this execution for TEMPLATE and LISTDEF use but the utility control statements will not be executed. PREVIEW via JCL parameter will continue to the end of the job step. PREVIEW via OPTIONS PREVIEW will continue until the end of the job step or another OPTIONS control statement.

Severity: 0 (informational)

System Action: Utility control statements are previewed but not executed.

User Response: If the return code is 8, PREVIEW detected errors which must be corrected. If the return code is 4, PREVIEW detected potential problems, but the previewed statements are valid.

Examine the preview output shown in informational messages DSNU1010I, DSNU1020I, DSNU1021I, DSNU1022I, DSNU1023I and DSNU1025I, plus any error messages. Correct any statements that are in error and remove the PREVIEW option to execute the control statements.

DSNU1001I *csect-name* - **LISTDEF list-name
CLAUSE IDENTIFIES NO NEW
OBJECTS: clause-type object-type
qualifier.name**

Explanation: An INCLUDE or EXCLUDE clause of a LISTDEF control statement returned no new objects. This means either that the INCLUDE or EXCLUDE clause evaluated to no objects at all, or that it did not return any objects which were not already included or excluded by previous INCLUDE or EXCLUDE clauses. In either case, the total number of objects covered by the LISTDEF did not change as a result of this clause.

Severity: 4 (warning)

System Action: Utility processing continues.

User Response: Correcting the clause in error will eliminate this message in the future.

DSNU1002I *csect-name* - **INVALID KEYWORD
SPECIFIED ON CLAUSE: clause-type
object-type qualifier.name**

Explanation: An INCLUDE or EXCLUDE clause of a LISTDEF control statement has an invalid keyword specified.

Catalog and directory objects may only be specified via their TABLESPACE or INDEXSPACE names. DATABASE, TABLE and INDEX may not be specified. Catalog and directory object names may not contain pattern matching characters. They must be included or excluded explicitly using their complete names. Those

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include or exclude clauses may not contain the keywords RI, BASS, LOB, ALL.

Severity: 8 (error)

System Action: Utility processing stops.

User Response: Correct the invalid LISTDEF clause and rerun the utility.

DSNU1003I *csect-name* - INVALID LIST FOR *utility-name* UTILITY

Explanation: The list name referenced on this control statement is not valid for the specified utility. The list either contains no objects or contains objects which cannot be processed by this specific utility.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the LISTDEF in error, and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1004I *csect-name* - DUPLICATE *object-type* *object-name* FOUND IN SYSIN *dd-name*

Explanation: Duplicate LISTDEF or TEMPLATE statements (duplicate names) were detected in the SYSIN, listdef, or template dataset.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Eliminate the duplicate LISTDEF or TEMPLATE names and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1005I *csect-name* - UTILITY *name* NOT ALLOWED IN *dd-type* DD *dd-name*

Explanation: The utility parser detected a control statement other than TEMPLATE in the SYSTEMPL data set or LISTDEF in the SYSLISTD data set.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Remove the invalid control statements and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1006I *csect-name* - *object-type* *object-name* NOT FOUND

Explanation: A utility control statement used a LIST or TEMPLATE that was not found in SYSIN or either of the SYSTEMPL or SYSLISTD data sets. These DD names may vary if OPTIONS LISTDEFDD or OPTIONS TEMPLATEDD were specified.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Provide the missing LISTDEF or TEMPLATE definition in SYSIN prior to its use and resubmit the utility job. If the definition utility exists in another data set, provide the SYSTEMPL or SYSLISTD DD card for the data set. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1007I *csect-name* - DATE/TIME VALUES MAY CHANGE BEFORE EXECUTION

Explanation: PREVIEW processing has detected DSN date/time variables on a TEMPLATE control statement being used. These values may change before the actual utility execution, resulting in different data set names.

Severity: 4 (warning)

System Action: Preview processing continues normally.

DSNU1008I *csect-name* - LISTDEF *name* CONTAINS NO OBJECTS

Explanation: The indicated LISTDEF list definition expands to contain no objects.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the LISTDEF definition and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1009I *csect-name* - TEMPLATE *name* DSN= *dataset-name*

Explanation: PREVIEW processing has expanded a referenced TEMPLATE data set name to the value shown. If the data set name contains date/time variables, the date/time values might change before actual utility execution.

Severity: 8 (error)

System Action: PREVIEW processing continues.

User Response: If the data set names shown are not acceptable, correct the TEMPLATE control statements, and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1011I WORKFILE NOT ALLOWED IN LISTDEF

Explanation: A workfile database cannot be used in a LISTDEF list because utilities do not process them.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the LISTDEF in error, and resubmit the utility job. Refer to *DB2 Utility Guide and*

Reference for the correct option specifications.

DSNU1012I *csect-name* - LISTDEF MUST BEGIN WITH AN INCLUDE CLAUSE

Explanation: A LISTDEF control statement begins with an EXCLUDE clause. The LISTDEF control statement must begin with an INCLUDE clause.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the LISTDEF in error, and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1013I *csect-name* - dd-type DD CARD dd-name NOT FOUND

Explanation: An OPTIONS control statement specifies a DD name '*dd-name*' that does not exist in the JCL.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the DD name on the OPTIONS statement or include the missing JCL DD card, and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1014I *csect-name* - INDEXSPACE name NOT FOUND

Explanation: The specified INDEXSPACE does not exist.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Correct the operand in error, and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1015I *csect-name* - ERROR ALLOCATING DATA SET DSN=*name* CODE=*X'reason-code'*

Explanation: An error was returned by SVC 99 during TEMPLATE data set dynamic allocation. This message is followed by text which explains the reason-code shown.

Severity: 8 (error)

System Action: Utility processing for the current object halts. If a list is being processed, utility processing of the next object will proceed or halt based on the OPTIONS ITEMERROR control statement. By default, execution will HALT.

User Response: Correct the error preventing dynamic allocation, and resubmit the utility job. In some cases,

TEMPLATE dynamic allocation may not be possible and a JCL DD card may be required. See DYNALLOC (SVC 99) text unit documentation for limitations.

DSNU1016I *csect-name* - TEMPLATE DSN VARIABLE *var-name* HAS NO VALUE

Explanation: A utility has attempted to build a data set name based on a TEMPLATE that specifies DSN variables. The variable shown has no value in this particular use. For example, **PART** when the object is not partitioned or **ICTYPE** when an image copy is not being allocated.

Severity: 8 (error)

System Action: Utility processing for the current object halts. If a list is being processed, utility processing of the next object will proceed or halt based on the OPTIONS ITEMERROR control statement. By default, execution will HALT.

User Response: Correct the TEMPLATE DSN specification to eliminate the invalid variable or use a different TEMPLATE, and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1017I *csect-name* - TEMPLATE DSN VARIABLE *var-name* TRUNCATED TO *value*

Explanation: While performing dynamic allocation of a TEMPLATE data set the DSN variable shown was truncated to the value shown.

Severity: 4 (warning)

System Action: Utility processing continues.

DSNU1018I *csect-name* - USER *user-id* NOT AUTHORIZED TO ACCESS CATALOG TABLE *qualifier.name*

Explanation: The user executing the utility does not have the required authority to access the catalog table shown. This access is required to expand the LISTDEF control statement being used.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: GRANT the required authority to access the DB2 catalog to the user executing the utility. Refer to the LISTDEF section of *DB2 Utility Guide and Reference* for valid authorities.

DSNU1019I *csect-name* - INVALID TEMPLATE NAME *template-name*

Explanation: A TEMPLATE control statement specifies an invalid TEMPLATE name. The names UTPRINT,

SORTLIB and any name starting with SORTWK or SYS may not be used.

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Correct the TEMPLATE name in error, and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1020I *csect-name* - **EXPANDING LISTDEF**
list-name

Explanation: PREVIEW processing is performing the catalog lookup necessary to expand the specified LISTDEF.

Severity: 0 (informational)

System Action: PREVIEW processing continues.

DSNU1021I *csect-name* - **PROCESSING** *clause-type*
CLAUSE *object-type qualifier.name*

Explanation: PREVIEW processing is expanding the specified clause of a LISTDEF. A DSNU1022I message follows this message to indicate how many objects are identified by each INCLUDE or EXCLUDE clause and message DSNU1023I to show the final expanded list..

Severity: 0 (informational)

System Action: PREVIEW processing continues.

DSNU1022I *csect-name* - **CLAUSE IDENTIFIES** *n*
OBJECTS

Explanation: PREVIEW processing has expanded one INCLUDE or EXCLUDE clause of a LISTDEF control statement. The clause expanded to the indicated *n* number of objects. The sum of the values shown on the DSNU1022I messages may not match the quantity shown on DSNU1023I due to INCLUDEs, EXCLUDEs and list overlap.

Severity: 0 (informational)

System Action: PREVIEW processing continues.

DSNU1023I *csect-name* - **LISTDEF** *name* **CONTAINS**
n **OBJECTS**

Explanation: PREVIEW processing has finished expanding a LISTDEF. The final list contains the indicated number of objects. The value shown may not match the sum of previous DSNU1022I quantities due to INCLUDEs, EXCLUDEs and list overlap.

Severity: 0 (informational)

System Action: PREVIEW processing continues.

DSNU1024I *csect-name* - **OPTIONS EVENT**
WARNING HAS SET RETURN CODE TO
return-code

Explanation: Utility processing has ended with WARNING messages and a return code of 4. However, due to a previous OPTIONS EVENT WARNING control statement, the return code has been changed to the indicated return code.

Severity: 0 (informational) or 8 (warning)

System Action: Utility processing halts if WARNING RC8 was specified, or continues if WARNING RC0 was specified.

User Response: Use OPTIONS WARNING RC0 only on repetitive utility executions where WARNING messages are expected and acceptable.

DSNU1025I *csect-name* - *name* **IS A DD NAME**

Explanation: PREVIEW processing has checked the current utility control statement for TEMPLATE dynamic allocation and has found the specified name refers to a JCL DD card, not a template. In all cases the presence of a DD card takes precedent over any TEMPLATE of the same name.

Severity: 0 (informational)

System Action: PREVIEW processing continues.

User Response: If a TEMPLATE and DD card have the same name, the DD card always takes precedence. If the indicated name should not reference a DD card, perform one of the following actions:

- Remove the DD card
- Change the TEMPLATE name on the TEMPLATE control statement and the utility control statement that refers to it

If the reference to the DD card is correct, no action is necessary. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1026I *csect-name* - **LIST** *using-list* **REUSES**
LIST *used-list*

Explanation: A LISTDEF list is INCLUDING or EXCLUDING another list that has already been used in expansion of this clause. This "circular reference" is not allowed. For example, the following specification is not allowed: LISTDEF A INCLUDE LIST B LISTDEF B INCLUDE LIST A

Severity: 8 (error)

System Action: Utility processing does not initiate.

User Response: Correct one or more LISTDEF control statements to eliminate the circular reference and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1027I *csect-name* - PROCESSING CONTINUES DUE TO OPTIONS ITEMERROR SKIP

Explanation: An error has occurred during utility processing, indicated by previous error messages. However, because an OPTIONS ITEMERROR SKIP control statement is in force, processing continues.

Severity: 8 (error)

System Action: Utility processing continues on the current utility control statement only. Subsequent utility control statements in the same job step will not be processed.

User Response: Correct the previous error, and resubmit the utility for the objects in error. If the utility experiencing an error is QUIESCE and a single quiesce point is required for the entire list, the entire list must be resubmitted.

DSNU1028I *csect-name* - INVALID KEYWORD kkkkkkkk FOR DASD TEMPLATE

Explanation: A DASD TEMPLATE control statement cannot include the tape TEMPLATE keyword kkkkkkkk.

Severity: 8 (error)

System Action: Utility processing does not initiate.

User Response: DB2 uses the UNIT operand to determine the data set type. Either remove the tape keyword from the TEMPLATE control statement, or correct the UNIT operand to refer to a tape unit. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1029I *csect-name* - INVALID KEYWORD kkkkkkkk FOR TAPE TEMPLATE

Explanation: A tape TEMPLATE control statement cannot include the DASD TEMPLATE keyword kkkkkkkk.

Severity: 8 (error)

System Action: Utility processing does not initiate.

User Response: DB2 uses the UNIT operand to determine the data set type. Either remove the DASD keyword from the TEMPLATE control statement, or correct the UNIT operand to refer to a DASD unit. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1030I *csect-name* - QUALIFIER qqqqqqqq TOO LONG

Explanation: The TEMPLATE DSN qualifier 'qqqqqqqq' is greater than eight characters.

Severity: 8 (error)

System Action: Utility processing for the current

object halts. If a list is being processed, utility processing of the next object will proceed or halt based on the OPTIONS ITEMERROR control statement. By default execution will HALT.

User Response: Correct the TEMPLATE DSN expression and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1031I *csect-name* - DSN name TOO LONG

Explanation: The TEMPLATE DSN operand results in a data set name '*name*' that is too long for the type of data set being allocated.

Severity: 8 (error)

System Action: Utility processing for the current object halts. If a list is being processed, utility processing of the next object will proceed or halt based on the OPTIONS ITEMERROR control statement. By default execution will HALT.

User Response: Correct the TEMPLATE DSN operand in error, and resubmit the utility job. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1032I *csect-name* - INVALID QUALIFIER qualifier IN TEMPLATE name

Explanation: The TEMPLATE DSN qualifier either contains invalid characters or does not start with an alpha character.

Severity: 8 (error)

System Action: Utility processing for the current object halts. If a list is being processed, utility processing of the next object will proceed or halt based on the OPTIONS ITEMERROR control statement. By default, execution will HALT.

User Response: Correct the TEMPLATE DSN operand in error, and resubmit the utility job. A common cause of this error message is leaving the trailing period off of a TEMPLATE DSN variable name. All TEMPLATE DSN variable names are of the form &xyz. and must contain the trailing period. Refer to *DB2 Utility Guide and Reference* for the correct option specifications.

DSNU1033I *csect-name* - PROCESSING LIST ITEM: object-type qualifier.name

Explanation: While processing a LISTDEF list, utility processing has begun on the indicated object.

Severity: 0 (informational)

System Action: Utility processing continues.

DSNU1034I *csect-name - primary-secondary* **SPACE**
units quantity **TOO LARGE FOR DATA**
SET *name*

Explanation: The TEMPLATE PRIMARY or SECONDARY SPACE quantity indicated is too large. It is not possible to dynamically allocate a data set larger than 16 777 215 units.

Severity: 8 (error)

System Action: Utility processing for the current object halts. If a list is being processed, utility processing of the next object will proceed or halt based on the OPTIONS ITEMERROR control statement. By default, execution will HALT.

User Response: The DB2-calculated required space is too large to be dynamically allocated in the units shown. If the primary allocation is too large, use the PCTPRIME keyword to reduce the primary and increase the secondary. If the secondary allocation is too large, use the NBRSECND keyword to increase the number of secondary allocations. It is not possible to use TEMPLATE dynamic allocation for data sets larger than 16x(16 777 215) MB. If an object requires a data set of this size it must be processed individually using a DD card, not a template.

DSNU1035I *csect-name - statement-type*
STATEMENT PROCESSED
SUCCESSFULLY

Explanation: DB2 issues this message following the successful execution of an OPTIONS, LISTDEF, or TEMPLATE utility control statement.

Severity: 0 (informational)

System Action: DB2 processed and retained the options or definitions specified on the control statement for use on subsequent utility control statements.

DSNU1036I *csect-name -* **UNABLE TO ESTIMATE**
SPACE REQUIREMENTS FOR
dataset-use

Explanation: While processing a TEMPLATE control statement which does not include a SPACE keyword, DB2 could not calculate the default data set size. DB2 bases default calculations on the size of existing data sets. In this situation, DB2 could not determine the size of existing data sets because one or more of those existing data sets are:

- in-stream data sets,
- members of partitioned data sets,
- on tape,
- or results sets generated by DECLARE CURSOR executed with an EXEC SQL utility statement.

Severity: 8 (error)

System Action: DB2 halts utility processing for the

current object. If the utility is processing a list of objects, utility processing of the next object will proceed or halt based on the OPTIONS ITEMERROR control statement. By default, processing will HALT.

User Response: Add the SPACE keyword and its operands to the TEMPLATE control statement in error and rerun the utility. If the utility is the LOAD utility, you must add SPACE keywords for all TEMPLATE control statements referenced in the LOAD, except for the input data set.

DSNU1037I *csect-name -* **PREVIEW PROCESSING**
CONTINUES DUE TO JCL PARAMETER

Explanation: An OPTIONS utility control statement has attempted to turn off PREVIEW processing. PREVIEW processing continues because the PREVIEW JCL parameter has been specified. This parameter applies to the entire job step and can not be overridden by an OPTIONS control statement.

Severity: 0 (informational)

System Action: Utility processing continues in PREVIEW mode.

User Response: If PREVIEW processing must be turned off in the middle of a utility job step, remove the PREVIEW JCL parameter. Activate or deactivate PREVIEW processing by using the OPTIONS utility control statement, not the PREVIEW JCL parameter.

DSNU1038I *csect-name -* **DATASET ALLOCATED.**
TEMPLATE=*template-name*
DDNAME=*dd-name* **FILE**
SEQUENCE=*file-sequence*
DSN=*ds-name*

Explanation: The data set that was indicated in the message has been successfully allocated based on a TEMPLATE control statement. *file-sequence* will only be shown for tape datasets.

Severity: 0 (informational)

System Action: Processing continues.

DSNU1040I *csect-name -* **UNABLE TO LOCATE DSN**
dsname **ON RESTART**

Explanation: DB2 could not find data set *dsname* when the utility was restarted. The data set is required for restart to continue.

System Action: The utility step abends. The utility job step is in the stopped state.

User Response: Refer to the DB2 abend code x'00E400C3' for more information.

DSNU1041I *csect-name* - **UNABLE TO CREATE GDG BASE** *name reason*

Explanation: A TEMPLATE could not allocate a generation data group (GDG) data set, but the base GDG did not exist. The utility was unable to define the GDG base.

Severity: 8 (error)

System Action: Utility processing halts for the current object. If a list is in process, utility processing of the next object will proceed or halt based on the OPTIONS ITEMERROR control statement. By default, execution will HALT.

User Response: Review the reason value to determine why the GDG base could not be defined. The possible reasons and suggested responses include:

- **UNABLE TO LOAD IDCAMS PROGRAM.** Ensure that the utility can invoke the IDCAMS program. Ensure that the utility can invoke the IDCAMS program.
- **IDCAMS ABEND xxx.** Use xxx, the abend code from the IDCAMS program, to determine why the IDCAMS program abended.
- **ERROR IN IDCAMS.** Review the IDCAMS message output that is listed between messages DSNU1042I and DSNU1043I to determine why the GDG base could not be defined.

DSNU1042I *csect-name* - **START OF IDCAMS MESSAGES**

Explanation: This message indicates the beginning of the IDCAMS messages or other related non-DB2 messages. DSNU1043I indicates the end.

User Response: No action is required, but subsequent IDCAMS messages may require some action. See the *z/OS MVS System Messages Volumes 1-10* or other appropriate documentation for more information.

DSNU1043I *csect-name* - **END OF IDCAMS MESSAGES**

Explanation: This message indicates the end of the IDCAMS or other related non-DB2 messages. DSNU1042I indicates the beginning.

User Response: No action is required, but preceding messages may require some action. See the *z/OS MVS System Messages Volumes 1-10* for more information.

DSNU1044I *csect-name* - **PROCESSING ddname AS EBCDIC**

Explanation: The utility control statement input data set begins with an EBCDIC character and is assumed for the duration of this job step to contain only EBCDIC characters.

Severity: 0 (informational)

System Action: Processing of EBCDIC utility control statements continues.

User Response: If processing of utility control statements as EBCDIC is incorrect make sure the first character in the input data set is UNICODE, specifically UTF-8 CCSID 1208. This will cause the entire input data set to be processed as UNICODE.

DSNU1045I *csect-name* - **PROCESSING ddname AS UNICODE UTF-8**

Explanation: The utility control statement input data set begins with a UNICODE character, specifically UTF-8 CCSID 1208, and is assumed for the duration of this job step to contain only UNICODE characters.

Severity: 0 (informational)

System Action: Processing of UNICODE utility control statements continues.

User Response: If processing of utility control statements as UNICODE is incorrect make sure the first character in the input data set is EBCDIC. This will cause the entire input data set to be processed as EBCDIC.

DSNU1050I *csect-name* - **INVALID SUBSTRING NOTATION IN EXPRESSION string ON TEMPLATE template name**

Explanation: Invalid substring notation was detected on the TEMPLATE DSN operand. The portion of the DSN operand which is in error and the TEMPLATE name on which it occurred are shown.

Severity: 8 (error)

System Action: Utility processing is terminated.

User Response: Correct the TEMPLATE control statement which is in error. Common causes of this error are incorrect syntax of the (s,l) clause and values of "s" or "l" which fall outside of the variable value at the time of execution.

DSNU1100I *csect-name* **RECORD 'n' FOR PARTITION m WILL BE DISCARDED DUE TO field-name CONVERSION ERROR FOR table-name**

Explanation: The load utility found the input data provided for a field to be incorrect. The corresponding input data set record 'n' from the input data set specified for partition m will be placed in the DISCARDS data set.

Severity: 4 (warning)

System Action: The input data set record is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set for partition *m*. Correct the error in the discarded input data. Submit a RESUME(YES) LOAD invocation with the DISCARDS data set as the input data set. Refer to *DB2 Utility Guide and Reference* for a definition of LOAD input field column specifications.

DSNU1101I *csect-name* RECORD 'n' FOR PARTITION *m* WILL BE DISCARDED DUE TO INVALID *field-name* COLUMN SPECIFICATION

Explanation: The load utility calculated the location of an input data value using the field specifications supplied and VARCHAR length fields present within the input data set record. The calculated position for the field was determined to be incorrect.

Severity: 4 (warning)

System Action: The input data set record number is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set for partition *m*. Correct the error in the discarded input data, if one exists. Otherwise, correct the input field specification. Submit a RESUME(YES) LOAD invocation, which uses the DISCARDS data set and the verified LOAD utility statement and field specifications. Refer to *DB2 Utility Guide and Reference* for a definition of LOAD input field column specifications.

DSNU1102I *csect-name* RECORD 'n' FOR PARTITION *m* WILL BE DISCARDED DUE TO ERROR = X'*reason-code*' FROM EXIT ROUTINE *procedure-name* FOR *table-name*

Explanation: The exit routine provided by your installation blocked the load of record 'n' for partition *m* into the table indicated. The reason-code was set by the exit routine.

Severity: 4 (warning)

System Action: The input data set record number is noted and will be discarded in the DISCARD phase. The record in error is placed in the DISCARDS data set. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set for partition *m*. Correct the error in the discarded input data, if one exists. Ensure that the exit routine provided is correct. Submit a RESUME(YES) LOAD invocation, which uses the DISCARDS data set and the verified LOAD utility

statement and field specifications. Refer to *DB2 Utility Guide and Reference* for a definition of LOAD input field column specifications.

System Programmer Response: Verify that the validation routine is correct.

DSNU1103I *csect-name* RECORD 'n' FOR PARTITION *m* WILL BE DISCARDED DUE TO PART OR HIGH KEY VALUE SPECIFICATION(S)

Explanation: The discarded record does not belong to the partition *m* being loaded. For a LARGE table space, this might be because the key is higher than the high key value specified for the last partition.

Severity: 4 (warning)

System Action: The input data set record number is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set for partition *m*. Correct the error in the discarded input data, if one exists. Submit a RESUME(YES) LOAD invocation with the DISCARDS data set as the input data set. Refer to Part 2 of *DB2 Utility Guide and Reference* for a definition of LOAD input field column specifications.

System Programmer Response: Verify that the validation routine is correct.

DSNU1104I *csect-name* RECORD 'n' FOR PARTITION *m* WILL BE DISCARDED DUE TO WHEN SPECIFICATION(S)

Explanation: The discarded record does not satisfy the WHEN selection expression provided for partition *m*.

Severity: 4 (warning)

System Action: The input data set record is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set for partition *m*. Correct the error in the discarded input data, if one exists. Submit a RESUME(YES) LOAD invocation with the DISCARDS data set as the input data set. Refer to *DB2 Utility Guide and Reference* for a definition of LOAD input field column specifications. If FORMAT UNLOAD was specified on the load statement, the WHEN specifications are built internally. This ensures that the rows are loaded back into the same object from which they were unloaded. Refer to *DB2 Utility Guide and Reference* for a description of the FORMAT UNLOAD option of LOAD.

DSNU1105I *csect-name* RECORD 'n' FOR PARTITION *m* WILL BE DISCARDED DUE TO UNEXPECTED ERROR

Explanation: The LOAD of input data set record number 'n' for partition *m* was attempted but was not successful due to an unexpected error.

Severity: 8 (error)

System Action: If the error was caused because a resource was not available, a DSNT500I message will be issued.

The utility step will be abended with a system X'04E' and an abend reason code of '00E40318'. If a DSNT500I message is not issued, an SVC dump will be requested. A SYSABEND dump of batch storage is also requested.

User Response: If a DSNT500I message was issued, refer to the description under that message number. If the unavailable resource becomes available, the utility step is restartable.

If there is no DSNT500I message, the error is an unexpected internal error and you should consult your system programmer.

Operator Response: An operator with SYSOPR authority can issue a TERM UTIL to free any held resources if that is necessary.

System Programmer Response: Refer to *DB2 Command Reference* for information about the TERM UTIL command. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNU1106I *csect-name* RECORD 'n' FOR PARTITION *m* WILL BE DISCARDED DUE TO INVALID *field-name* COLUMN SPECIFICATION FOR *table-name*

Explanation: The load utility calculated the location of an input data value using the field specifications supplied and VARCHAR length fields present within the input data set record 'n' for partition *m*. The calculated position for the field was determined to be incorrect.

Severity: 4 (warning)

System Action: The input data set record number is noted and will be discarded in the DISCARD phase. The LOAD utility continues to process additional records in the input data set.

User Response: Following the completion of the current LOAD utility invocation, examine the record in the DISCARDS data set for partition *m*. Correct the error in the discarded input data, if one exists. Otherwise, correct the input field specification. Submit a RESUME(YES) LOAD invocation, which uses the DISCARDS data set and the verified LOAD utility statement and field specifications. Refer to *DB2 Utility*

Guide and Reference for a definition of LOAD input field column specifications.

DSNU1107I *csect-name* - UNIQUE INDEX KEY DUPLICATES KEY OF INDEXED ROW AT RID *rrrr* INDEX = *index-name* TABLE = *table-name* RECNO = *input-dataset-record-number* FOR PART = *m* RID = *duprid*

Explanation: The input data set record indicated was loaded into table 'table-name', partition *m*, at RID 'duprid', but it causes a unique index violation for index 'index-name'. It duplicates the key value of a record already in the table at RID 'rrrr'.

Severity: 4 (warning)

System Action: Processing continues. No index entry is created for the record at RID 'duprid'. The record will be deleted in a subsequent phase of processing.

DSNU1108I *csect-name* UNIQUE INDEX KEY DUPLICATES KEY FROM INPUT DATASET RECORD *iiii* FOR PART *m* LOADED AT RID *rrrr* INDEX = *index-name* TABLE = *table-name* RECNO = *recno* RID = *duprid*

Explanation: Input data set record 'recno' was loaded into table 'table-name', partition *m*, at RID 'duprid', but it causes a unique index violation for index 'index-name'. It duplicates the key value of another record in the load job: the record loaded at RID 'rrrr' from input data set record 'iiii'.

Severity: 4 (warning)

System Action: Processing continues. Index entries are not created for either record. Both records will be deleted in a subsequent phase of processing.

DSNU1109I *csect-name* RECORD 'n' FOR PARTITION *m* WILL BE DISCARDED DUE TO CHECK CONSTRAINT *constraint-name* VIOLATION ON TABLE *table-name*

Explanation: The discarded record violates the check constraint named *constraint-name* defined on table *table-name*. The record is not loaded and is discarded during the DISCARD phase.

Severity: 4 (warning)

System Action: The LOAD utility continues to process additional records in the input data set.

User Response: After the LOAD utility completes, examine the record in the DISCARDS data set for partition *m*. Correct the error in the discarded input data. Submit a RESUME(YES) LOAD job with the DISCARDS data set as the input data set.

DSNU1110I *csect-name* RECORD 'n' FOR PARTITION *m* VIOLATES CHECK CONSTRAINT *constraint-name* ON TABLE *table-name*

Explanation: The LOAD utility cannot load record *n* into table *table-name* partition *m* because the check constraint *constraint-name* would be violated. The record is not loaded.

Severity: 8 (error)

System Action: Processing terminates. An abend is requested so that the LOAD can be restarted after the error condition is corrected.

User Response: Find the failing record in the input data set for partition *m*, correct the condition that caused the check constraint to be violated, and restart the LOAD utility.

DSNU1111I *csect-name* FOREIGN KEY HAS NO PRIMARY KEY FOR RELATIONSHIP=*r1* INPUT RECORD NUMBER=*nnnn*, PART *m*, RID=*X'rrrr'*

Explanation: Input record 'nnnn' for partition *m* caused a row to be loaded into table 'table' at RID 'rrrr' with no primary key for the relationship with the name 'r1'.

Severity: 4 (warning)

System Action: Processing continues.

User Response: None required. The constraint violation described will be rectified later in processing.

DSNU1112I *csect-name* DISCARD PHASE STATISTICS - *nnn* INPUT DATA SET RECORDS DISCARDED FOR PARTITION *m*

Explanation: Input data set records were rejected by the LOAD utility for one or several reasons. The rejected records have been placed in a discards data set. The number of records rejected for partition *m* is 'nnn'. Message DSNU399I summarizes the errors causing the records to be rejected.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Examine the LOAD error summary and decide which of the discarded records, if any, should be corrected and reapplied to the table space.

DSNU1113I *csect-name* - LOAD UTILITY ERROR SUMMARY REPORT

Explanation: This message summarizes errors detected during the load job. Figure 2 shows the format of the report. It is issued only if unique index or referential constraint violations were detected.

ERROR SEVERITY	INPUT RECORD	PART	Discard Heading	ERROR TYPE	TABLE NAME	FIELD/FANSET NAME	RELATED ERROR
sev	idsrn	pno	ddsrn	type	name1	name2	idsrn2
.

Figure 2. LOAD Utility Error Summary Report

The report contains one line for each error. The errors are listed first by error severity and within that by *idsrn*.

The *Discard Heading* is either DISCARD RECORD or blank, depending on whether discard processing is in effect.

The report fields have the following meanings:

sev The severity of the error reported on this line:

Severity	Type of Error	Explanation
1	Primary	Primary referential integrity errors and all nonreferential integrity errors.
2	Secondary	Secondary referential integrity errors (that is, errors that result from a primary referential integrity error in an ancestor).

idsrn The relative record number in the input data set, for the partition identified by *pno*, of the record causing the error reported on this line.

pno The partition number for the input data set of the record causing the error reported on this line.

ddsrn The relative record number in the input data set of the record causing the error reported on this line, if discard processing is in effect. Otherwise, *ddsrn* is blank.

type A description of the type of error reported on this line, as follows:

- Conversion
- Field specification
- Validation
- Part Specification
- Unexpected
- Column specification
- Referential integrity
- Check constraint
- Duplicate key.

name1 The name of the table for which the record causing the error was targeted, if this information is pertinent for the type of error reported on this line. Otherwise, *name1* is blank. This field has nonblank values for the following error types:

- Conversion
- Validation

Column specification
Referential integrity (primary).
Check constraint

name2 The name of the field or fanset involved in the error reported on this line, if this information is pertinent for the type of error reported. Otherwise, *name2* is blank. This field contains a field name for the following types of errors:

- Conversion
- Field specification
- Column specification.

For primary referential integrity errors, *name2* is a relationship name. For check constraint errors, *name2* is a check constraint name.

idsrn2 The input data set record number of a related error. For duplicate key errors, it gives the input data set record number of the record whose key is duplicated. For secondary referential integrity errors, it gives the input data set record number of the record whose primary referential integrity error cascaded to cause this secondary error. For other types of errors, this field is unused.

Severity: 4 (warning)

System Action: Processing continues.

DSNU1114I *csect-name* (RE)LOAD PHASE
STATISTICS NUMBER OF RECORDS
LOADED = *nnnn* FOR TABLE
table-name

Explanation: When the SHRLEVEL CHANGE option is selected, DB2 issues this message upon normal completion of the (RE)LOAD phase of the LOAD utility. It indicates the number of records loaded into TABLE *table-name* from the source record data set (that is, the data set identified by the JCL DD statement identified in the INDDN option for the LOAD. This message is repeated for each TABLE loaded by the current LOAD utility statement

Severity: 0 (informational)

System Action: Processing of the RELOAD phase continues.

User Response: Verify that the number of record loaded reported is consistent with expectations. For example, if four records are processed, the user should expect to see NUMBER OF RECORD LOADED = 4.

DSNU1115I *csect-name nnnn* RESTART PHASE NOT
ALLOWED IN THE (RE)LOAD PHASE,
PHASE CHANGED TO CURRENT

Explanation: This message is issued when the RESTART PHASE is requested for a LOAD SHRLEVEL CHANGE utility. RESTART PHASE is not allowed for LOAD SHRLEVEL CHANGE.

Severity: 4 (warning)

System Action: Processing of the RELOAD phase continues.

User Response: No action is necessary. If another RESTART is required, use the RESTART option instead of RESTART PHASE.

DSNU1116I *csect-name* FOREIGN KEY HAS NO
PRIMARY KEY FOR RELATIONSHIP=*r1*
INPUT RECORD NUMBER=*nnnn*

Explanation: Input record *nnnn* has no primary key for the relationship with the name *r1*. The row is not loaded.

Severity: 4 (warning)

System Action: Processing continues.

User Response: None required.

DSNU1117I *csect-name* - UNIQUE INDEX KEY
DUPLICATES KEY OF INDEXED
RECORD AT RID *rrrr* INDEX =
index-name TABLE = *table-name*
RECNO = *input-dataset-record-number*

Explanation: The input data set record was loaded into table *table-name* at RID *duprid*, but it causes a unique index violation for index *index-name*. It duplicates the key value of a record already in the table at RID *rrrr*.

Severity: 4 (warning)

System Action: Processing continues. No index entry is created for the record at RID *duprid*.

DSNU1118I *csect-name* (RE)LOAD PHASE
STATISTICS - *nnnn* DUPLICATE KEY
ERRORS ENCOUNTERED

Explanation: This message is issued by the (RE)LOAD phase of the LOAD utility when the SHRLEVEL CHANGE option is used. The number of duplicate key errors that were encountered during processing is *nnnn*.

Severity: 0 (informational)

System Action: Processing continues.

DSNU1120I AUX TABLE NOT DEFINED FOR LOB
TABLE SPACE *dbname.tsname*

Explanation: The LOB table space *dbname.tsname* has been created, but no auxiliary table has been created in it.

Severity: 8 (error)

System Action: Utility operation is terminated with return code 8.

User Response: Complete the definition of the LOB table space before resubmitting the utility.

DSNU1121I *csect-name* (RE)LOAD PHASE STATISTICS - NUMBER OF RECORDS LOADED = *nnnn* FOR TABLE *table-name* PART *m*

Explanation: When the SHRLEVEL CHANGE option is selected, DB2 issues this message upon normal completion of the (RE)LOAD phase of the LOAD utility. It indicates the number of records that were loaded into part *m* of table *table-name* from the source record data set. The message repeats for each INTO TABLE PART clause in the LOAD utility statement.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Verify that the number of records loaded reported is consistent with expectations.

DSNU1122I JOB *job-name* PERFORMING *util-type* WITH UTILID *util-id* UNABLE TO DRAIN *object-name*. RETRY *n* OF *m* WILL BE ATTEMPTED IN *s* SECONDS

Explanation: A utility with the RETRY option specified has been unable to drain a tablespace, tablespace part, or index. The utility will make another attempt to acquire the drain after a delay.

Severity: 0 (informational)

System Action: The utility job continues.

User Response: The utility job attempts to acquire a restrictive access to the referenced object, and will retry if unsuccessful. Optionally, the user may determine who has claims on the object via the -DIS DATABASE command with CLAIMERS option, and cancel or end those threads.

DSNU1123I LOGICAL PARTITIONS WILL BE LOADED IN PARALLEL, NUMBER OF TASKS = *nnnn*

Explanation: This message is issued by the BUILD2 phase of the REORG utility. The message indicates that the REORG utility is able to update logical partitions in parallel. The number of utility tasks used to update logical partitions is indicated by :mv.nnnn:emv..*:p. This message is issued by the following CSECT(s): .*DSNURBD2

Severity: 0

System Action: Processing of the BUILD2 phase continues.

Programmer Response: You can verify that the number of tasks reported is consistent with expectations. For example, if 4 logical partitions are to

be updated, the user might expect to see number of tasks = 4.

DSNU1124I *csect-name* - UNIQUE INDEX KEY DUPLICATES KEY OF INDEXED RECORD AT RID *rrrr* INDEX = *index-name* TABLE = *table-name* RECNO = *input-dataset-record-number* FOR PART = *m*

Explanation: The input data set record indicated for PART *m* of table *table-name* causes a unique index violation for index *index-name*. It duplicates the key value of a record already in the table at RID *rrrr*. The record was not loaded.

Severity: 4 (warning)

System Action: Processing continues.

DSNU1125I *csect-name* FOREIGN KEY HAS NO PRIMARY KEY FOR RELATIONSHIP=*r1* INPUT RECORD NUMBER=*nnnn*,FOR PART *m*

Explanation: Input record *nnnn* for partition *m* for table *table* has no primary key for the relationship with the name *r1*. The row is not loaded.

Severity: 4 (warning)

System Action: Processing continues.

User Response: None required.

DSNU1126I *csect-name* PARTITION *n* IS SPECIFIED IN MORE THAN ONE INTO TABLE PART CLAUSE, PARTITION PARALLELISM IS DISALLOWED

Explanation: LOAD partition parallelism was requested via INDDN or INCURSOR following INTO TABLE PART clauses. However, the same partition was specified on more than one INTO TABLE PART clause. Partition parallelism is not supported for this case.

Severity: 8 (error)

System Action: Utility operation is terminated with return code 8.

User Response: Correct the LOAD statement in one of the following ways:

- Specify a different partition number on each INTO TABLE PART clause
- Remove the parallelism by removing the INDDN or INCURSOR keywords from the INTO TABLE PART clauses.

DSNU1128I *csect-name* FEWER PAGES THAN PARTS FOR REBALANCE

Explanation: In attempting to rebalance partitions during REORG, it is estimated that there are fewer total pages than the number of partitions being rebalanced.

Severity: 8 (error)

System Action: Remove the REBALANCE keyword from the REORG until there is sufficient data to populate pages for every partition.

DSNU1129I *csect-name* - PARTITION RANGE NOT CONTIGUOUS - REBALANCE IGNORED

Explanation: The partition range that was specified on a REORG REBALANCE does not represent a set of contiguous logical partitions. Due to a series of ALTER TABLE ADD PART and ALTER TABLE ROTATE PART statements, the physical partition numbers do not match the logical partition numbers.

The physical partition numbers that were specified as the REORG partition range do not represent a contiguous set of logical partitions. For example, physical partitions 1 and 2 might represent logical partitions 2 and 4.

Severity: 8 (error)

System Action: The REORG terminates with return code 8.

User Response: Use the DISPLAY DATABASE command to identify a range of physical partition numbers that represent a contiguous set of logical partitions, and resubmit the REORG REBALANCE while specifying that physical partition range. Alternatively, omit the partition range on the REORG REBALANCE so that the entire table space is reorganized.

DSNU1130I *csect-name* - NOT ALL PARTITIONS POPULATED BY REBALANCE - PROCESSING TERMINATES

Explanation: The table space that is being reorganized has many rows with duplicate partitioning key values, and there were insufficient unique values to allow distributing rows across all partitions during a rebalance.

Severity: 8 (error)

System Action: The utility is terminated with return code 8. For REORG SHRLEVEL NONE, the table space is left in the recover pending restricted state.

User Response: If the REORG was REORG SHRLEVEL NONE, recover the table space to the point in time before the REORG.

DSNU1141I *csect-name* INVALID DELIMITER CHARACTER *x*

Explanation: The delimiter character *x*, which was specified as the operand of a COLDEL, CHARDEL, or DECPT keyword, is not a valid delimiter.

Severity: 8 (error)

System Action: Utility processing is not initiated.

User Response: Review the rules for valid delimiters as stated in the *DB2 Utility Guide and Reference*. Correct the keyword and resubmit the job.

DSNU1142I *csect-name* RECORD *n* DELIMITER MISMATCH FOR COLUMN *colname*

Explanation: A column or character delimiter character that marks the end of input for column *colname* was not found before the end of the record.

Severity: 8 (error)

System Action: Processing terminates. An abend is requested so that the LOAD can be restarted after the error is corrected.

User Response: Find the failing record in the input data set, correct the condition that caused the error, and restart the LOAD utility.

DSNU1143I *csect-name* RECORD *n* WILL BE DISCARDED DUE TO DELIMITER MISMATCH FOR COLUMN *colname*

Explanation: A column or character delimiter character that marks the end of input for column *colname* was not found before the end of the record. The record is not loaded, and is discarded during the DISCARD phase.

Severity: 4 (warning)

System Action: The LOAD utility continues to process records in the input data set.

User Response: After the LOAD utility completes, examine the records in the discard data set. Correct the errors in the discarded input data, and submit a LOAD RESUME YES job with the DISCARD data set as the input.

DSNU1145I *csect-name* FORMAT DELIMITED REQUIRES ONE INTO TABLE

Explanation: LOAD FORMAT DELIMITED supports loading only a single table. LOAD FORMAT DELIMITED was specified in a LOAD statement with more than one INTO TABLE clause.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Correct the LOAD statement and resubmit the utility.

DSNU1178I *csect-name* - **SUM OF INPUT COLUMN LENGTHS FOR CURSOR** *cursor-name* **IS TOO LARGE**

Explanation: The size of the record that would be loaded for cursor *cursor-name* is greater than 32767 bytes.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Decrease the number of columns or the lengths of individual columns so the sum of the lengths of the columns (including 2 bytes for each nullable column) does not exceed 32767.

DSNU1201I *csect-name* - **PARTITIONS WILL BE UNLOADED IN PARALLEL, NUMBER OF TASKS =** *nnnn*

Explanation: The message indicates that the UNLOAD utility is able to unload partitions in parallel. The number of utility tasks used to unload partitions is indicated by *nnnn*.

Severity: 0 (informational)

System Action: Processing of the UNLOAD phase will continue.

DSNU1202I *csect-name* - **SAMPLING LIMIT HAS BEEN REACHED FOR TABLE** *table-name*

Explanation: In the UNLOAD statement, the LIMIT option is specified for table *table-name* and the number of unloaded rows from the table has reached the specified LIMIT value.

Severity: 0 (informational)

System Action: No more rows will be unloaded from the table, but the unloading operation will continue for the previously unloaded tables if they exist.

DSNU1203I *csect-name* - **GENERATION OF LOAD STATEMENT IS BYPASSED FOR TABLE** *table-name*

Explanation: The PUNCHDDN specification is omitted in a UNLOAD statement when partition parallelism is activated. The LOAD statement will not be generated for the indicated table.

Severity: 0 (informational)

System Action: The UNLOAD job will continue.

DSNU1211I *csect-name* - **INPUT DATA SET IS NOT AN IMAGE COPY**

Explanation: The input data set specified by the FROMCOPY or FROMCOPYDDN option of the UNLOAD utility was not identified as an image copy data set.

Severity: 8 (error)

System Action: The utility job terminates.

User Response: Specify the correct image copy data set name to the FROMCOPY option, or to the DD-name that is referred to by the FROMCOPYDDN option.

DSNU1212I *csect-name* - **INVALID FIELD NAME** *field-name* **FOR TABLE** *table-name*

Explanation: The specified field name in the field specification list of the UNLOAD utility is:

- Not a column name of the specified table, or
- An existing column name for the CONSTANT option.

The field name is not valid.

Severity: 8 (error)

System Action: The utility job terminates.

User Response: For a CONSTANT field, specify a non-existing field name. Otherwise, specify the field name as a column name of the indicated table.

DSNU1213I *csect-name* - **INVALID FIELD TYPE FOR FIELD** *field-name* **FOR TABLE** *table-name*

Explanation: The specified field type in the field specification list of the UNLOAD utility is incompatible with the base type of the corresponding column of the table.

Severity: 8 (error)

System Action: The utility job terminates.

User Response: Specify only a compatible type allowed for the unload operation in the field specification list.

DSNU1214I *csect-name* - **INVALID FIELD POSITION SPECIFICATION FOR FIELD** *field-name*, **TABLE** *table-name*

Explanation: For a UNLOAD statement, specified field positions are not in ascending order in the field specification list of the indicated table.

Severity: 8 (error)

System Action: The utility job terminates.

User Response: Specify the field positions in the ascending order in the field specification list. If a certain order of the output fields is desired, change the order of

the field in the list so that the field positions are in the ascending order.

DSNU1217I *csect-name* - **CONFLICTING FIELD POSITION AND/OR LENGTH SPECIFICATION FOR FIELD *field-name*, TABLE *table-name***

Explanation: For a UNLOAD statement, the specified field position for the indicated field caused a conflict with the previous field. This is caused either by

- The position value specified for the field is too small.
- The length specification for the previous field is too large.

Severity: 8 (error)

System Action: The utility job terminates.

User Response: Specify the correct position or length parameters in the field specification list so that there are enough space for the output fields.

DSNU1218I *csect-name* - **LOGICAL RECORD LENGTH OF OUTPUT RECORD EXCEEDED THE LIMIT FOR TABLE *table-name***

Explanation: The maximum length of the output records exceeded the physical limit for the UNLOAD utility.

Severity: 8 (error)

System Action: The utility job terminates.

Problem Determination: This problem will most likely occur when BLOB, CLOB, or DBCLOB columns are selected from a table to be unloaded.

User Response: Consider one or more of the following options that can reduce the length of the output record, if possible:

- Use the NOPAD option.
- Unload only the necessary fields using the field specification options.
- Specify the LENGTH option with TRUNCATE and/or STRIP options for the applicable fields.

If the above options can not be applied, you will have to use an application to unload the data from the table.

DSNU1219I *csect-name* - **THE NUMBER OF RECORDS IN ERROR REACHED THE LIMIT *nnnn***

Explanation: For the UNLOAD utility, the number of records in error reached the specified MAXERR limit.

Severity: 8 (error)

System Action: The utility job terminates.

Problem Determination: This problem will occur when

the number of errors in the output record formatting, including data conversion errors, detected by the UNLOAD utility reached the limit specified by the MAXERR option. For each record in error, the corresponding message has been issued. The records in error will not be unloaded to the output data set. This message is issued only once, even though there can be a situation in which the number of individual error messages exceeds the specified MAXERR value. This situation occurs only when the UNLOAD utility is running in the partition parallel mode and the multiple tasks have reached the MAXERR value concurrently.

User Response: Investigate the individual error message and determine the cause of the errors. The corrective action will differ by the type of the error. In certain situations, this condition may be anticipated. In this case, the total number of records unloaded before the job terminates can be adjusted by changing the MAXERR option value.

DSNU1220I *csect-name* - **UNLOADING LOB COLUMNS FROM IMAGE COPY IS NOT SUPPORTED FOR TABLE *table-name***

Explanation: For the UNLOAD utility, one or more BLOB, CLOB, and/or DBCLOB columns are selected on the indicated table when the source object is an image copy data set.

Severity: 8 (error)

System Action: The utility job terminates.

Problem Determination: When the source object of the UNLOAD utility is an image copy, selection of a LOB column is not supported.

User Response: Specify a field selection list that does not include any BLOB, CLOB, or DBCLOB column from the indicated table.

DSNU1221I *csect-name* - **UNLDDN IS NOT SPECIFIED OR SPECIFIED TEMPLATE *template-name* IS INVALID FOR MULTIPLE TABLE SPACES**

Explanation: For the UNLOAD utility, the output data set specification is invalid when the source objects consist of multiple table spaces.

Severity: 8 (error)

System Action: The utility job terminates.

Problem Determination: When the source objects of the UNLOAD utility consist of multiple table spaces, an output data set corresponding to each table space is required.

User Response: Include an appropriate TEMPLATE statement in the unload job step that contains the table space name as a variable. If the table space is selected from different databases, the database name must also

be included as a variable. Specify the template name to the UNLDDN option.

DSNU1222I *csect-name* - **TEMPLATE** *template-name*
**SPECIFIED FOR PUNCHDDN IS
INVALID FOR MULTIPLE TABLE
SPACES**

Explanation: For the UNLOAD utility, the specification of output data set to store the generated LOAD statement is invalid when the source objects consist of multiple table spaces.

Severity: 8 (error)

System Action: The utility job terminates.

Problem Determination: When the source objects of the UNLOAD utility consist of multiple table spaces, an output data set corresponding to each table space is required.

User Response: Include an appropriate TEMPLATE statement in the unload job step that contains the table space name as a variable. If the table space is selected from different databases, the database name must also be included as a variable. Specify the template name to the PUNCHDDN option. The TEMPLATE should be different from the one used for UNLDDN.

DSNU1223I *csect-name* - **TABLESPACE
SPECIFICATION IS MISSING FOR
FROMCOPY OR FROMCOPYDDN**

Explanation: For the UNLOAD utility, the FROMCOPY or FROMCOPYDDN option is used but the TEMPLATE specification is missing.

Severity: 8 (error)

System Action: The utility job terminates.

Problem Determination: When the source objects of the UNLOAD utility is an image copy, the TABLESPACE option is required to specify the table space name of the image copy.

User Response: Add the TABLESPACE option in the UNLOAD statement to specify the table space name of the image copy.

DSNU1224I *csect-name* - **TABLE** *table-name* **IS NOT
IN THE TABLE SPACE** *table-space-name*

Explanation: The indicated *table-name* given in a FROM TABLE option is not in the table space specified by the TABLESPACE option.

Severity: 8 (error)

System Action: The utility job terminates.

Problem Determination: There is an unmatched between the TABLESPACE and FROM TABLE specifications or the specified table was dropped.

Dropped tables are not supported by the UNLOAD utility.

User Response: Correct either the TABLESPACE or the FROM TABLE specification to select a table in the specified table space. If the table was dropped, remove the FROM TABLE option for the dropped table.

DSNU1225I *csect-name* - **TABLESPACE KEYWORD
IS NOT SPECIFIED. AT LEAST ONE
FROM TABLE SPECIFICATION IS
REQUIRED.**

Explanation: There is no TABLESPACE nor FROM TABLE specification in a UNLOAD statement. The source object for unloading can not be identified.

Severity: 8 (error)

System Action: The utility job terminates.

User Response: If the TABLESPACE specification is omitted, specify at least one FROM TABLE option to identify the source object. Instead of a TABLESPACE specification, the LIST option can be used, if a LISTDEF statement defines a list of objects. When the LIST option is used, the FROM TABLE option can not be specified.

DSNU1226I *csect-name* - **THE NUMBER OF
OBJECTS IS TOO LARGE**

Explanation: The number of source objects for the UNLOAD utility is too large. Overflow in some of the internal data structures occurred.

Severity: 8 (error)

Problem Determination: This problem will most likely occur when the LIST option is used and the corresponding LISTDEF definition is expanded to a large number of objects.

System Action: The utility job terminates.

User Response: Divide the UNLOAD job step into two or more job steps and, in each job step, use a LISTDEF that expands to less number of objects.

DSNU1227I *csect-name* - **THE CONTENT OF THE
IMAGE COPY DATA SET IS
INCONSISTENT WITH TABLE SPACE**
table-space

Explanation: For the UNLOAD utility, the data set specified by the FROMCOPY or the FROMCOPYDDN option is not corresponding to the table space.

Severity: 8 (error)

System Action: The utility job terminates.

User Response: Specify a correct image copy data set name for the table space, or specify the correct table space name for the image copy.

DSNU1228I *csect-name* - A ROWID COLUMN *column-name*, TABLE *table-name* IS SELECTED FOR UNLOAD BUT THE PAGE SET HEADER PAGE IS MISSING IN THE SPECIFIED IMAGE COPY DATA SET

Explanation: For the UNLOAD utility, a ROWID column is selected for unloading from an image copy, but the required information to form the ROWID can not be retrieved because the page set header page is not included in the specified image copy data set.

Severity: 8 (error)

System Action: The utility job terminates.

Problem Determination: The problem will most likely occur when a piece of copy data set, not the first one, is specified to the FROMCOPY option.

User Response: Use the FROMCOPYDDN, instead of FROMCOPY, to specify a DD name where the first piece of copy that contain the page set header page is concatenated to the source image copy data set.

DSNU1229I *csect-name* - ERROR IN LOADING DICTIONARY FOR TABLE SPACE *table-space*

Explanation: For the UNLOAD utility, an error was detected in loading the dictionary for decompression while reading an image copy data set.

Severity: 8 (error)

System Action: The utility job terminates.

Problem Determination: Possibly the image copy data set is corrupted.

User Response: If the right image copy data set is specified to the FROMCOPY or FROMCOPYDDN, it will be required to take a new image copy for the table space by running the COPY utility or using other alternative methods.

DSNU1230I *csect-name* - INCONSISTENT STRIP CHAR LENGTH FOR FIELD *field-name*, TABLE *table-name*

Explanation: An invalid strip character was specified for the indicated field of the table.

Severity: 8 (error)

System Action: The utility job terminates.

Problem Determination: For an SBCS or MIXED character field, the strip character, if specified, must be an SBCS character; for a DBCS field, it must be a DBCS character.

User Response: Specify the correct strip character applicable to the field.

DSNU1231I *csect-name* - LENGTH OF OUTPUT RECORD IS TOO LONG FOR TABLE *table-name*

Explanation: An output record for the indicated table exceeded the physical limit.

Severity: 4 (warning)

System Action: The record in error will not be unloaded to the output data set. The UNLOAD utility continues until the total number of records in error reaches the value specified by the MAXERR option (the default is 1).

If the total number of records reaches the MAXERR value, the UNLOAD utility issues the DSNU1219I message and terminates with the return code 8.

Problem Determination: This message is issued only when the NOPAD option is specified in the UNLOAD statement and most likely when BLOB, CLOB, or DBCLOB columns are selected for unload from the table. It is also possible that, if the expansion of output strings occurs due to the encoding scheme specified for the output, the total length of some output records becomes longer than expected.

User Response: Consider the following options to reduce the size of the output records:

- Unload only the necessary fields using the field specification options.
- Specify the LENGTH option with TRUNCATE and/or STRIP options for the applicable fields.

If the above options can not be applied, you will have to use an application to unload the data from the table.

DSNU1232I *csect-name* - COMPRESSED ROW IS IGNORED BECAUSE THE DICTIONARY IS NOT AVAILABLE FOR TABLE *table-name*

Explanation: The UNLOAD utility encountered a compressed row when unloading the data from an image copy data set but the dictionary for decompression has not been loaded for the table space.

Severity: 4 (warning)

System Action: The record in error will not be unloaded to the output data set. The UNLOAD utility continues until the total number of records in error reaches the value specified by the MAXERR option (the default is 1). If the total number of records reaches the MAXERR value, the UNLOAD utility issues the DSNU1219I message and terminates with the return code 8.

Problem Determination: This message is issued when a copy of pieces (not the first piece) of a compressed table space is specified in the FROMCOPY or FROMCOPYDDN option of the UNLOAD utility.

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User Response: To unload compressed rows from the copy of pieces, use COPYDDN option to specify a DD name under which the first copy of pieces that contains the compression dictionary is concatenated.

DSNU1233I *csect-name* - **DATA IS TOO LONG FOR FIELD** *field-name*, **TABLE** *table-name*

Explanation: The space for the field in an output record is not enough to unload the data from the corresponding column of a row in the indicated table.

Severity: 4 (warning)

System Action: The record in error will not be unloaded to the output data set. The UNLOAD utility continues until the total number of records in error reaches the value specified by the MAXERR option (the default is 1).

If the total number of records reaches the MAXERR value, the UNLOAD utility issues the DSNU1219I message and terminates with the return code 8.

Problem Determination: This message is issued when the space of a field in an output record is limited by the LENGTH specification for the field or the POSITION specification for the next field.

User Response: Apply appropriate values to the LENGTH and/or POSITION parameters in the field specification list to accommodate the data in the output records. Alternatively, specify TRUNCATE option to the field, if applicable. Specifying the STRIP option, if applicable, can also reduce the length of data if the data contains leading or trailing blanks.

DSNU1234I *csect-name* - **NUMERIC CONVERSION ERROR OCCURRED FOR FIELD** *field-name*, **TABLE** *table-name*

Explanation: The UNLOAD utility encountered an error when it tried to convert a data of one numeric type to another.

Severity: 4 (warning)

System Action: The record in error will not be unloaded to the output data set. The UNLOAD utility continues until the total number of records in error reaches the value specified by the MAXERR option (the default is 1).

If the total number of records reaches the MAXERR value, the UNLOAD utility issues the DSNU1219I message and terminates with the return code 8.

Problem Determination: This message is issued most likely when an overflow occurs in converting a data of one numeric type to another. For example, an attempt to convert an INTEGER 32768 to a SMALL INT causes an overflow.

User Response: To eliminate any numeric overflow error, specify the same numeric data type for the output

as the base type of the columns in the table. Convert numeric types only when it is known that the range of the source data fits in the allowable range of the specified numeric type for the output.

DSNU1235I *csect-name* - **CCSID SUBSTITUTION IS ATTEMPTED WITH NOSUBS OPTION FOR FIELD** *field-name*, **TABLE** *table-name*

Explanation: While the UNLOAD utility is running with the NOSUBS option, a CCSID substitution is attempted in the CCSID translation process for the indicated field.

Severity: 4 (warning)

System Action: The record in error will not be unloaded to the output data set. The UNLOAD utility continues until the total number of records in error reaches the value specified by the MAXERR option (the default is 1). If the total number of records reaches the MAXERR value, the UNLOAD utility issues the DSNU1219I message and terminates with the return code 8.

User Response: If it is desired to eliminate any CCSID substitution, specify an appropriate CCSID that has the corresponding entries to the original CCSID, if available. To allow the default CCSID substitution, remove the NOSUBS option.

DSNU1236I *csect-name* - **POSITION SPECIFICATION CAUSES FIELD OVERLAP FOR FIELD** *field-name*, **TABLE** *table-name*

Explanation: For the UNLOAD utility, the space for an output field was overlapped by the indicated field to which the POSITION parameter is specified.

Severity: 4 (warning)

System Action: The record in error will not be unloaded to the output data set. The UNLOAD utility continues until the total number of records in error reaches the value specified by the MAXERR option (the default is 1). If the total number of records reaches the MAXERR value, the UNLOAD utility issues the DSNU1219I message and terminates with the return code 8.

Problem Determination: This message will be issued only when the NOPAD option is specified in the UNLOAD statement. The POSITION specification for the field caused a conflict with the positioning and/or the length of a previous field.

User Response: Consider the following options to eliminate this situation:

- Remove the POSITION specifications from the field specification list.
- Adjust the POSITION parameter for the field to preserve enough space for the previous fields.

- Adjust the LENGTH, possibly with the TRUNCATE option, of the previous fields, if applicable.

DSNU1237I *csect-name* - ERROR IN CCSID
CONVERSION FOR FIELD *field-name*,
TABLE *table-name*

Explanation: The CCSID translation process detected a code point or form exception while the UNLOAD utility was running.

Severity: 4 (warning)

System Action: The record in error will not be unloaded to the output data set. The UNLOAD utility continues until the total number of records in error reaches the value specified by the MAXERR option (the default is 1). If the total number of records reaches the MAXERR value, the UNLOAD utility issues the DSNU1219I message and terminates with the return code 8.

User Response: If the specified CCSID for output is incorrect, correct the CCSID specification. If a valid CCSID is specified, notify the system programmer.

System Programmer Response: Verify the contents of SYSSTRINGS. If necessary, insert a row into SYSSTRINGS for the translation. For an SBCS translation, the row must contain a translate table or the name of a user-provided translate procedure. For a DBCS translation, the row must contain the name of a user-provided translate procedure.

DSNU1238I TABLE *table2* IS NOT IN SAME
TABLESPACE AS TABLE *table1*

Explanation: All source tables for a single UNLOAD utility statement must be in the same table space.

Severity: 8 (error)

System Action: Utility processing terminates.

User Response: Remove the FROM TABLE control statement that specifies *table2* from the current UNLOAD request. Create another UNLOAD utility statement that contains the FROM TABLE control statement for *table2* so that all source tables in a single UNLOAD request are from the same table space. Resubmit the job.

DSNU1250I *csect-name* - ERROR IN CCSID
CONVERSION FOR *object-type*.
SOURCE CCSID=*ccsid*, TARGET
CCSID=*ccsid*

Explanation: The CCSID translation process failed for *object-type*. The values of *object-type* and the cause of the error for each type are:

- SBCS PAD CHAR
- DBCS PAD CHAR
- VERIFICATION

- HEADER CONST
- *field-name*

Severity: 8 (error)

System Action: The utility terminates.

User Response: If the CCSID that is specified in the utility control statement is incorrect, correct the CCSID specification. If a valid CCSID is specified, notify the system programmer.

System Programmer Response: Check the SYSSTRINGS catalog table to determine whether a row exists for the CCSID conversion. If a row does not exist, and OS/390 V2R9 is installed, refer to *z/OS C/C++ Programming Guide* for additional conversions that are supported. If no conversions are available, contact your IBM service representative to request support for the conversion.

DSNU1251I *csect-name* - ERROR IN CCSID
CONVERSION FOR *object-type* IN FIELD
field-name OF TABLE *table-name*.
SOURCE CCSID=*ccsid*, TARGET
CCSID=*ccsid*

Explanation: The CCSID translation process failed for *object-type*. The values of *object-type* and the cause of the error for each type are:

- STRIP CHAR

Severity: 8 (error)

System Action: The utility terminates.

System Programmer Response: Check the SYSSTRINGS catalog table to determine whether a row exists for the CCSID conversion. If a row does not exist, and OS/390 V2R9 is installed, refer to *z/OS C/C++ Programming Guide* for additional conversions that are supported. If no conversions are available, contact your IBM service representative to request support for the conversion.

User Response: If the CCSID that is specified in the utility control statement is incorrect, correct the CCSID specification. If a valid CCSID is specified, notify the system programmer.

DSNU1252I THE PARTITION VARIABLE IN THE
TEMPLATE DSN WAS SPECIFIED BUT
PARTITION PARALLELISM IS NOT
ACTIVATED

Explanation: A utility control statement for the UNLOAD utility contains a template name in the UNLDDN option. The template contains a variable that represents a partition number. However, the source object is either a non-partitioned table space or an image copy that does not support partition parallelism.

Severity: 4 (warning)

System Action: UNLOAD processing continues. For

the indicated table space, a single output data set is allocated, and the unloaded data is placed in that data set.

DSNU1254I *csect-name* **FORMAT DELIMITED
REQUIRES ONE AND ONLY ONE FROM
TABLE**

Explanation: UNLOAD FORMAT DELIMITED supports unloading only from a single table. FORMAT DELIMITED was specified either with:

- Multiple FROM TABLE specifications, or
- No FROM TABLE specifications, with a table space that contains more than one table.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Correct the UNLOAD statement and resubmit the utility.

DSNU1300I *csect-name* **MODIFY STATISTICS
COMPLETED SUCCESSFULLY**

Explanation: This message reports the successful completion of the MODIFY STATISTICS utility operation.

Severity: 0 (informational)

DSNU1301I *csect-name n*
**SYSIBM.SYSCOLDIST_HIST ROWS
WERE DELETED**

Explanation: This message displays the number *n* of SYSIBM.SYSCOLDIST_HIST rows that were deleted by the MODIFY STATISTICS utility.

Severity: 0 (informational)

DSNU1302I *csect-name n*
**SYSIBM.SYSCOLUMNS_HIST ROWS
WERE DELETED**

Explanation: This message displays the number *n* of SYSIBM.SYSCOLUMNS_HIST rows that were deleted by the MODIFY STATISTICS utility. The rows were deleted based on the AGE criteria or the DATE criteria that the user specified.

Severity: 0 (informational)

DSNU1303I *csect-name n*
**SYSIBM.SYSINDEXES_HIST ROWS
WERE DELETED**

Explanation: This message displays the number *n* of SYSIBMS.SYSINDEXES rows that were deleted by the MODIFY STATISTICS utility. The rows were deleted based on the AGE criteria or the DATE criteria that the user specified.

Severity: 0 (informational)

DSNU1304I *csect-name n*
**SYSIBM.SYSINDEXPART_HIST ROWS
WERE DELETED**

Explanation: This message displays the number *n* of SYSIBM.SYSINDEXPART_HIST rows that were deleted by the MODIFY STATISTICS utility. The rows were deleted due to the AGE criteria or the DATE criteria that the user specified.

Severity: 0 (informational)

DSNU1305I *csect-name n*
**SYSIBM.SYSINDEXSTATS_HIST ROWS
WERE DELETED**

Explanation: This message displays the number *n* of SYSIBM.SYSINDEXSTATS_HIST rows that were deleted by the MODIFY STATISTICS utility. The rows were deleted due to the AGE criteria or the DATE criteria that the user specified.

Severity: 0 (informational)

DSNU1306I *csect-name n*
**SYSIBM.SYSLOBSTATS_HIST ROWS
WERE DELETED**

Explanation: This message displays the number *n* of SYSIBM.SYSLOBSTATS_HIST rows that were deleted by the MODIFY STATISTICS utility. The rows were deleted due to the AGE criteria or the DATE criteria that the user specified.

Severity: 0 (informational)

DSNU1307I *csect-name n*
**SYSIBM.SYSTABLEPARTS_HIST ROWS
WERE DELETED**

Explanation: This message displays the number *n* of SYSIBM.SYSTABLEPARTS_HIST rows that were deleted by the MODIFY STATISTICS utility. The rows were deleted due to the AGE criteria or the DATE criteria that the user specified.

Severity: 0 (informational)

DSNU1308I *csect-name n*
**SYSIBM.SYSTABLES_HIST ROWS
WERE DELETED**

Explanation: This message displays the number of SYSIBM.SYSTABLES_HIST rows that were deleted by the MODIFY STATISTICS utility. The rows were deleted due to the AGE criteria or the DATE criteria that the user specified.

Severity: 0 (informational)

DSNU1309I *csect-name n*
**SYSIBM.SYSTABSTATS_HIST ROWS
WERE DELETED**

Explanation: This message displays the number *n* of SYSIBM.SYSTABSTATS_HIST rows that were deleted by the MODIFY STATISTICS utility. The rows were deleted due to the AGE criteria or the DATE criteria that the user specified.

Severity: 0 (informational)

DSNU1310I *obj-type
dbname.tsname DSNUM dsnum*
**THE IMAGE COPY FOR
RESIDES ON A TAPE VOLUME BUT IS
NOT PREALLOCATED VIA JCL AND
TAPEUNITS IS 0**

Explanation: The specification of TAPEUNITS=0 restricts the utility from using tape units that are not preallocated via JCL.

Severity: 8 (error)

System Action: Processing stops for this object.

User Response: Either change the value on the TAPEUNITS keyword and resubmit the job, or preallocate the image copy and resubmit the job.

DSNU1400I *csect-name - COPYTOCOPY UTILITY
NOT SUPPORTED FOR obj-type
obj-qual.obj-name DSNUM n*

Explanation: COPYTOCOPY cannot make copies of:

- DSNDB01.SYSUTILX, DSNDB01.DBD01, or DSNDB06.SYSCOPY table spaces, or any of their indexes.
- An image copy that was taken using the COPY utility with the CONCURRENT option.

Severity: 8 (error)

System Action: Processing halts for this object. If the utility job step includes an OPTIONS control statement with the EVENT(ITEMERROR,SKIP) option, COPYTOCOPY processes the next item in the list.

User Response: If the unsupported object is a restricted catalog or directory object listed in the explanation, use another method to make all image copies for this object.

If the unsupported object is an image copy made with the CONCURRENT option, then make a primary local image copy by running the COPY utility without the CONCURRENT option. Rerun COPYTOCOPY to make additional image copies.

DSNU1401I *csect-name - UNABLE TO LOCATE
IMAGE COPY FOR obj-type
obj-qual.obj-name DSNUM n*

Explanation: One of the following conditions prompted this error code:

- The COPYTOCOPY utility attempted to make additional image copies from the referenced object. However, SYSIBM.SYSCOPY does not contain a record of the referenced object.
- UNLOAD utility could not find a record in SYSIBM.SYSCOPY for the image copy dataset that was requested.

Severity: 8 (error)

System Action: Processing halts for this object.

User Response: Make a primary local image copy by running the COPY utility, then run COPYTOCOPY to make additional image copies.

DSNU1402I *csect-name - copy-type FOR obj-type
obj-qual.obj-name DSNUM n WITH
START_RBA rba ALREADY EXISTS*

Explanation: COPYTOCOPY attempted to make an image copy that already exists.

Severity: 8 (error)

System Action: The utility does not make the image copy for the specified object type. COPYTOCOPY makes the remaining types of image copies. If there is a list of objects to be copied, COPYTOCOPY processes the next object in the list.

User Response: Run the REPORT utility to determine the image copy types that you need. Modify your COPYTOCOPY job, and rerun it as needed.

DSNU1403I *csect-name - copy-type DATA SET ds
WITH START_RBA rba IS IN USE BY
COPYTOCOPY FOR obj-type
obj-qual.obj-name DSNUM n*

Explanation: The COPYTOCOPY utility issues this message before it opens an image copy data set and begins the copying process.

Severity: 0 (informational)

System Action: COPYTOCOPY processing continues.

DSNU1404I *csect-name - COPYTOCOPY
PROCESSING COMPLETED FOR
obj-type obj-qual.obj-name DSNUM n
ELAPSED TIME = elapsed time
NUMBER OF PAGES COPIED = n*

Explanation: COPYTOCOPY issues this message at the normal completion of an object. The time that elapsed since the beginning of processing the object to

its completion was *hh* hours, *mm* minutes, and *ss* seconds.

Severity: 0 (informational)

System Action: The COPYTOCOPY utility completed normally for this object. Processing continues.

DSNU1405I *csect-name - site-type* **SITE PRIMARY
IMAGE COPY DOES NOT EXIST FOR
obj-type obj-qual.obj-name** **DSNUM** *n*

Explanation: The COPYTOCOPY utility attempted to make a backup image copy for the site, but the primary image copy does not exist.

Severity: 8 (error)

System Action: The utility cannot make the site backup copy. If the utility job includes an OPTIONS control statement with the EVENT(ITEMERROR,SKIP) option, COPYTOCOPY processes the next item on the list.

User Response: Modify your COPYTOCOPY job, COPYDDN or RECOVERYDDN option, to include the ddname for the primary copy.

DSNU1406I *csect-name - COPYTOCOPY*
**COMPLETED. ELAPSED TIME =
elapsed_time**

Explanation: DB2 issues this message at the normal completion of the COPYTOCOPY utility. The time that elapsed since the beginning of the COPYTOCOPY utility to its completion was *hh* hours, *mm* minutes, and *ss* seconds.

Severity: 0 (informational)

System Action: Processing continues to the next utility statement in the utility job step, if any. If not, the utility job step halts, and the UTILID of the utility job step becomes available for reuse.

DSNU1407I *csect-name - MISMATCH BETWEEN
THE NUMBER OF PAGES READ=count
AND THE NUMBER OF PAGES
ORIGINALLY COPIED=count FOR
INPUT DATA SET dsname* **OBJECT
NAME obj-type obj-qual.obj-name
DSNUM** *n*

Explanation: The COPYTOCOPY or RECOVER utility issues this message when it detects that the number of pages read from the input image copy does not match the original number of pages copied by the COPY utility. The utility retrieves the number of pages originally copied from the COPYPAGESF column of the SYSIBM.SYSCOPY record for the input image copy data set.

Severity: 8 (error)

System Action: The COPYTOCOPY utility terminates

processing of this object. The RECOVER utility attempts to continue by falling back to the previous full image copy, if any. If the utility job step includes an OPTIONS control statement with the EVENT(ITEMERROR,SKIP) option, COPYTOCOPY processes the next item in the list.

User Response: Report to IBM Center. Provide output of COPYTOCOPY job, the data set referenced in the message, and run REPORT utility on the object and provide its output.

DSNU1408I *csect-name - SOURCE DATA SET
dsname* **DOES NOT** *obj-type
obj-qual.obj-name* **DSNUM** *n*

Explanation: The COPYTOCOPY or RECOVER utility issues this message when the DBID or PSID of the source data set does not match the DBID or PSID of the table space or index space for which the copy is made. This error can occur if the data set was reused.

Severity: 4 (warning)

System Action: RECOVER attempts to continue processing by falling back to the previous full image copy, if any.

COPYTOCOPY searches for the next available image copy data set with the same START_RBA value as the START_RBA value registered in SYSIBM.SYSCOPY for dsname. If COPYTOCOPY finds a data set, it uses that data set. Otherwise, COPYTOCOPY issues message DSNU1401I.

If FROMCOPY is specified, processing of this object halts.

User Response: Determine why the data set was reused for the image copy data set that is registered in SYSIBM.SYSCOPY.

If FROMCOPY is specified, correct the COPYTOCOPY utility control statement. Specify a source data set that is an image copy of the table space or index space for which you want additional image copies.

DSNU1409I *csect-name - tttt* **ERRORS ON DATA
SET NAME=dsname** *obj-type
obj-qual.obj-name* **DSNUM** *n*

Explanation: DB2 detected I/O errors on the named object. *tttt* is either 'READ' or 'WRITE'.

Severity: 4 (warning)

System Action: If FROMCOPY is specified, processing is terminated. Otherwise, processing will continue. The utility will attempt to use the next available image copy data set that matches COPYTOCOPY job specification with the same START_RBA as the data set named in error. If it fails to find one, processing of this object is terminated.

User Response: There may be an IOS message on

the MVS console SYSLOG indicating the type of I/O error that occurred. If an IOS message was issued, follow the Problem Determination directions for the message.

DSNU1410I *csect-name* - **INCREMENTAL IMAGE COPY DISALLOWED FOR** *obj-type*
obj-qual.obj-name **DSNUM** *n*. **FULL IMAGE COPY WILL BE USED**

Explanation: An incremental image copy is disallowed for the specified object type. The utility ignores the request, and creates a full image copy if available.

Severity: 4 (warning)

System Action: The system treats the request to copy an incremental image copy as a request to copy a full image copy.

User Response: The capacity of the target image copy data set may not be sufficient if its size was established assuming an incremental image copy. If this condition occurs, halt the utility and resubmit the job step with the appropriate size.

DSNU1411I *csect-name* - *ut_name* **DOES NOT SUPPORT RESTART(PHASE). PHASE CHANGED TO CURRENT.**

Explanation: This utility does not support the RESTART(PHASE).

Severity: 0 (informational)

System Action: The utility overrides RESTART(PHASE) with RESTART(CURRENT).

DSNU1450I *csect-name* **CHARACTER CONVERSION FROM CCSID** *from-ccsid* **TO CCSID** *to-ccsid* **FAILED WITH ERROR CODE** *error-code* **FOR TABLE** *dbid.obid* **COLUMN** *column-number*

Explanation: A conversion error occurred during the conversion of a string to a different coded character set. The error occurred during the processing of the utility statement.

from-ccsid

identifies the coded character set of the string to be converted.

to-ccsid

identifies the coded character set to which it must be converted.

error-code

indicates the type of error as defined as follows:

- 8** Length exception (for example, expansion required for PC MIXED data exceeds the maximum length of the string).

12 Invalid code point.

16 Form exception (for example, invalid MIXED data).

20 Translate procedure error (for example, an error during Unicode/390 stage 2 conversions or an exit set the length control field of the string to an invalid value).

24 the conversion services have not been setup correctly or the conversion is not supported.

dbid.obid

gives the database id and the table obid of the object with the conversion error. This could be either the target or the source of the conversion.

column-number

gives the column number of the failing object. This could be either the target or the source of the conversion.

System Action: The utility job is terminated.

User Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. The user may generate a dump by adding the DIAGNOSE ABEND statement in the utility job and re-running the utility. If the error can be fixed, correct the error and resubmit the utility, else issue the TERM utility command to terminate the utility.

DSNU1502I *csect-name* - **RECOVER OF** *obj-type*
obj-qual.objname *dsnum n* **WILL PROCEED TO LOG POINT X'***rba/lrsn***'**

Explanation: DB2 issues this message if the RECOVER utility statement includes the TOLASTCOPY or TOLASTFULLCOPY keyword. The message provides information on the point in time that the object was recovered to. In a data sharing environment, the log point identified is an LRSN. Otherwise, the log point identified is an RBA.

Severity: 0 (informational)

System Action: The RECOVER utility statement continues processing.

DSNU1510I *csect-name* - **LOG APPLY PHASE COMPLETE, ELAPSED TIME:**
HH.MM.SS

Explanation: This message is issued at the normal completion of the LOG APPLY phase of the RECOVER utility. The time that has elapsed between the beginning and completion of this phase was:

hh hours

mm minutes

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ss seconds

Severity: 0 (informational)

System Action: Processing continues.

DSNU1511I *csect-name* - FAST LOG APPLY WAS NOT USED FOR RECOVERY

Explanation: The RECOVER utility issues this message to notify the user that FAST LOG APPLY was not used. FAST LOG APPLY is not used for the following reasons:

- The ZPARM DSN6SYSP LOGAPSTG has 0 or insufficient storage specified.
- The storage that is used by currently active RECOVER jobs exceeds what was specified in the DSN6SYSP LOGAPSTG ZPARM.

Severity: 0 (informational)

System Action: The RECOVER utility continues processing.

DSNU1600I *csect-name* - BACKUP SYSTEM UTILITY FOR *object* STARTING, COPY POOL = *copy-pool-name*, TOKEN = *X'token'*

Explanation: Backup of the indicated object, either data or logs, to the indicated copy pool and with the indicated token is starting.

Severity: 0 (informational)

System Action: Backup of the indicated object has started.

System Programmer Response: None.

DSNU1601I *csect-name* - BACKUP SYSTEM UTILITY IS NOT RESTARTABLE. RESTART IGNORED. A NEW BACKUP WILL BE INITIATED

Explanation: The BACKUP SYSTEM utility cannot be restarted. The restart is ignored and a new backup is done.

Severity: 0 (informational)

System Action: The restart is ignored, and a new BACKUP SYSTEM request is initiated.

System Programmer Response: None.

DSNU1602I *csect-name* - BACKUP SYSTEM UTILITY COMPLETED, ELAPSED TIME = *hh:mm:ss*

Explanation: The BACKUP SYSTEM utility cannot be restarted. The restart is ignored, and a new backup is done.

Severity: 0 (informational)

System Action: None.

System Programmer Response: None.

DSNU1603I *csect-name* - RESTORE SYSTEM UTILITY RESTART FAILED BECAUSE THE MEMBER-ID,*member-id*, ON WHICH THE RESTART HAS BEEN ISSUED IS DIFFERENT FROM THE MEMBER-ID, *member-id*, ON WHICH THE RESTORE WAS ORIGINALLY DONE

Explanation: A group RESTORE in a data sharing environment is already in the log apply phase. The RESTORE was originally issued and owned by a member other than the one that issued the restart, which is not allowed.

Severity: 8 (error)

System Action: The restart fails.

System Programmer Response: Issue the restart job from the member that was indicated in the message.

DSNU1604I *csect-name* - RESTORE SYSTEM PHASE LOG APPLY STARTED AT LOG POINT = *log-point-value*

Explanation: The RESTORE SYSTEM utility has begun applying logs beginning at the log-point-value in order to arrive at the point in time indicated by the log point at which the logs were truncated via the SYSPITR parameter on the conditional restart command, CRESTART CREATE.

Severity: 0 (informational)

System Programmer Response: None.

DSNU1605I *csect-name* - BACKUP SYSTEM UTILITY FAILED BECAUSE DB2 IS NOT IN VERSION 8 NEW FUNCTION MODE OR LATER

Explanation: The BACKUP SYSTEM utility can be run only when DB2 is in VERSION 8 'new function mode' or later.

Severity: 8 (error)

System Action: The utility is terminated.

System Programmer Response: Complete the conversion of DB2 to 'new function mode' before attempting to run the BACKUP SYSTEM utility.

DSNU1606I *csect-name* - RESTORE SYSTEM UTILITY STARTING, COPY POOL = *copy-pool-name*, TOKEN = *X'token'*

Explanation: Restore of the indicated copy pool with the indicated token is starting.

Severity: 0 (informational)

System Action: None.

System Programmer Response: None.

DSNU1607I *csect-name* - RESTORE SYSTEM UTILITY REQUIRES INSTALL SYSADM AUTHORITY TO RUN. THE CALLER HAS INSUFFICIENT AUTHORITY

Explanation: The invoker of the RESTORE SYSTEM utility lacks the install SYSADM authority required to run the utility.

Severity: 8 (error)

System Action: The utility is terminated.

System Programmer Response: Ensure that the RESTORE SYSTEM utility is run by an administrator with install SYSADM authority.

DSNU1608I *csect-name - system-utility* SYSTEM UTILITY FAILED. REQUIRED DFSMSHSM SERVICES NOT AVAILABLE.

Explanation: The system that attempted to run the BACKUP SYSTEM or RESTORE SYSTEM utility does not have the version of z/OS that contains the version of DFSMSHSM that is required by those utilities.

Severity: 8 (error)

System Action: The utility is terminated.

System Programmer Response: Ensure that the required version of the z/OS operating system is installed on the system on which the BACKUP SYSTEM and RESTORE SYSTEM utilities are to be run.

DSNU1609I *csect-name* - BACKUP SYSTEM UTILITY REQUIRES SYSADM OR SYSCTRL AUTHORITY TO RUN. THE CALLER HAS INSUFFICIENT AUTHORITY

Explanation: The invoker of the BACKUP SYSTEM utility lacks the SYSADM or SYSCTRL authority required to run the utility.

Severity: 8 (error)

System Action: The utility is terminated.

System Programmer Response: Ensure that the BACKUP SYSTEM utility is run by an administrator with SYSADM or SYSCTRL authority.

DSNU1610I *csect-name* - AN INCOMPLETE BACKUP SYSTEM HISTORY ENTRY HAS BEEN FOUND IN THE BSDS, INDICATING THERE MAY BE AN INVALID DATA AND LOG VERSION IN COPYPOOL = *copy-pool-name* FOR TOKEN = *X'token'*. DFSMSHSM WILL BE CALLED TO DELETE THE VERSION

Explanation: During Backup System processing, an incomplete backup history entry was found in the BSDS. For example, an incomplete entry can exist if DB2 or z/OS goes down before backup processing can complete. Such an entry indicates that a data and log version may exist in the indicated copy pool for the indicated token.

Severity: 0 (informational)

System Action: Backup System will invoke DFSMSHsm to delete the version of the data and logs before proceeding with the current backup.

System Programmer Response: None.

DSNU1611I *csect-name* - A FAILURE HAS OCCURRED DURING BACKUP SYSTEM PROCESSING. DFSMSHSM IS BEING CALLED TO DELETE THE INCOMPLETE VERSION IN COPYPOOL = *copy-pool-name* FOR TOKEN = *X'token'*

Explanation: A failure that was previously indicated during Backup System processing has created an incomplete version. The copy pool and token with the incomplete version are indicated in the message text. This incomplete version must be deleted.

Severity: 0 (informational)

System Action: Backup System will invoke DFSMSHsm to delete the incomplete version.

System Programmer Response: None.

DSNU1612I *csect-name* - RESTORE SYSTEM UTILITY FAILED BECAUSE THE SYSTEM IS NOT IN SYSTEM RECOVER-PENDING STATE.

Explanation: The RESTORE SYSTEM utility cannot be run unless the proper preparation has been made. That preparation includes truncation of logs and performing a conditional restart of the appropriate system(s) so as to place them in the System RECOVER-PENDING state. This procedure is detailed in the Part 4 (Volume 1) of *DB2 Administration Guide* under 'System point in time recovery'.

Severity: 8 (error)

System Action: The utility is terminated.

System Programmer Response: Review the

procedures for preparing systems for running the RESTORE SYSTEM utility found in Part 4 (Volume 1) of *DB2 Administration Guide* under 'System point in time recovery'.

DSNU1614I *csect-name* - **BACKUP SYSTEM UTILITY FOR *object* COMPLETED SUCCESSFULLY, COPY POOL = *copy-pool-name*, TOKEN = X'*token*', ELAPSED TIME = *hh:mm:ss***

Explanation: The backup of the indicated object, data or logs, has completed successfully.

Severity: 0 (informational)

System Action: None.

System Programmer Response: None.

DSNU1616I *csect-name* - **THE CALL TO DFSMSHsm TO RESTORE SYSTEM FAILED. PLEASE SEE MESSAGE ARC1806E IN THE OUTPUT FOR DETAILS. COPY POOL = *copy-pool-name*, TOKEN = X'*token*'. A RETRY WILL BE ATTEMPTED IF AN APPROPRIATE BACKUP VERSION CAN BE IDENTIFIED.**

Explanation: The call to DFSMSHsm to RESTORE SYSTEM with the indicated copy pool name and token failed during DFSMSHsm processing. DFSMSHSM will have issued message ARC1806E indicating the cause of the error. This message can be found in the job log of the RESTORE SYSTEM utility.

If this is the first attempt by the RESTORE SYSTEM utility to do the RESTORE, a second attempt will be made if there is another appropriate Backup version recorded in the BACKUP SYSTEM history BSDS record. An appropriate Backup version is one for which data backup completed before the log truncation point indicated in the SYSPITR parameter of the conditional restart command, CRESTART CREATE. Messages indicating the progress of a subsequent attempt will be issued, just as for the first attempt.

If the second attempt fails, no further attempts will be made and the request will be failed.

Severity: 8 (error)

System Action: If this is the first attempt to do the RESTORE and there is another appropriate Backup available, a second attempt will be made. Otherwise the utility will terminate.

System Programmer Response: Correct the problem identified in message ARC1806E and rerun the utility.

Problem Determination: The job log will contain the ARC1806E message that is issued by DFSMSHsm. This message will contain information indicating the cause of the failure in DFSMSHsm.

DSNU1618I *csect-name* - **RESTORE SYSTEM UTILITY FAILED BECAUSE THERE ARE NO BACKUP SYSTEM HISTORY ENTRIES IN THE BSDS**

Explanation: There are no BACKUP SYSTEM history entries in the BSDS. Without these records no Restore can be done. Backups of the target system(s) must be taken before any RESTOREs can be done.

Severity: 8 (error)

System Action: The utility is terminated.

System Programmer Response: None.

DSNU1619I *csect-name* - **RESTORE SYSTEM UTILITY FAILED, BECAUSE THERE ARE NO BACKUP SYSTEM HISTORY ENTRIES IN THE BSDS WITH A DATA COMPLETION LRSN/RBA PRIOR TO THE LOG TRUNCATION POINT**

Explanation: BACKUP SYSTEM history entries exist in the BSDS. However, none of them indicate a data Backup completion LRSN/RBA with a value less than the log truncation point. This log point is indicated in the SYSPITR parameter of the conditional restart command, CRESTART CREATE, used to truncate the logs.

Severity: 8 (error)

System Action: The utility is terminated.

Problem Determination: The logs have been truncated to a point before which there are any backups available. The procedure for BACKUP and RESTORE of DB2 systems is described in the Part 4 (Volume 1) of *DB2 Administration Guide* under 'System point in time recovery'. Please review these procedures.

DSNU1621I *csect-name - utility-name* **UTILITY FAILED BECAUSE THE SYSTEM IS IN SYSTEM RECOVER-PENDING STATE**

Explanation: When the system is in RECOVER-PENDING state, no utility other than RESTORE is allowed to run. An attempt was made to run a utility while the system was in RECOVER-PENDING state.

Severity: 8 (error)

System Action: The utility is terminated.

System Programmer Response: Review the need to run the utility and, if appropriate, resubmit your job after the system has been restored.

DSNU1623I *csect-name* - THE TERM UTILITY REQUEST IS REJECTED BECAUSE THE SYSTEM IS IN SYSTEM RECOVER-PENDING STATE

Explanation: The TERM request is rejected. The only utility that is allowed to run while the system is in the system RECOVER-pending state is the RESTORE utility.

Severity: 4 (warning)

System Action: The TERM request is ignored.

DSNU1624I *csect-name - system-utility* SYSTEM UTILITY FAILED BECAUSE ONE OR MORE NON-DORMANT MEMBERS ARE IN A FAILED OR NOT NORMALLY QUIESCED STATE. THOSE MEMBERS ARE: *member-id*

Explanation: The BACKUP or RESTORE of the members of a data sharing group requires that all members be active or normally quiesced. If any members are found not to be in either of these states, the BACKUP or RESTORE cannot continue.

Severity: 8 (error)

System Action: The utility is terminated.

System Programmer Response: Determine why these systems are in a problem state, and whether they can be moved out of this state. Once all members have been returned to either the active or normally quiesced state, resubmit the job.

DSNU1626I *csect-name - system-utility* SYSTEM UTILITY FAILED BECAUSE RESTORE SYSTEM IS ALREADY RUNNING OR ANOTHER TASK IS PROCESSING IN A MANNER THAT PREVENTS THIS TASK FROM SERIALIZING PROPERLY

Explanation: The attempt to acquire the serialization lock failed. In the case of RESTORE SYSTEM, this can only occur if RESTORE SYSTEM is already running. In the case of BACKUP SYSTEM, this can occur if any of the following events are in process:

- System checkpoint
- Data set extensions
- Writing 32K pages
- Writing close page set control log records (PSCRs)
- Creating data sets (for table spaces, indexes, and so on)
- Deleting data sets (for dropping tables spaces, indexes, and so on)
- Renaming data sets (for online reorganizing of table spaces, indexes, and so forth during the switch phase)

Severity: 8 (error)

System Action: The utility is terminated.

System Programmer Response: If it is the RESTORE SYSTEM utility that is being invoked, the only other utility that can be running is RESTORE SYSTEM. If it is the BACKUP SYSTEM utility that is being invoked, any system activity that provokes any of the processes listed in the Explanation above could be the cause of the failure. If possible, determine which utility is responsible and resubmit this job once that utility completes. You may also resubmit your job at a later, less busy time.

DSNU1627I *csect-name* - RESTORE SYSTEM PRE-LOG APPLY COMPLETED SUCCESSFULLY, COPY POOL = *copy-pool-name* TOKEN = *X'token'* ELAPSED TIME = *hh:mm:ss*.

Explanation: Restoration of the data from the indicated copy pool with the indicated token has completed successfully.

Severity: 0 (informational)

System Action: Continue with log apply phase.

System Programmer Response: None.

DSNU1628I *csect-name* - RESTORE SYSTEM PHASE LOG APPLY COMPLETED, ELAPSED TIME = *hh:mm:ss*

Explanation: The log apply phase of the RESTORE SYSTEM completed in the amount of time that was indicated.

Severity: 0 (informational)

DSNU1629I *csect-name* - DB2 PUT ONE OR MORE OBJECTS INTO THE RECOVER-PENDING STATE, REBUILD-PENDING STATE, OR LOGICAL PAGE LIST DURING THE LOG APPLY PHASE.

Explanation: During the log apply process, objects were put into one of the exception states that is indicated in the message. Before these objects can be used, they must be processed again after the Restore completes.

Severity: 0 (informational)

System Action: None.

System Programmer Response: Process those objects in the RECOVER-PENDING or REBUILD-PENDING states with the REBUILD or RECOVER utilities as appropriate. See the Utility Guide and Reference for further details.

To recover pages from the LPL, use the -START DATABASE command with the SPACENAM option, the RECOVER utility, or the LOAD utility.

Problem Determination: Use the DISPLAY DATABASE command to identify which objects are in the exception states indicated in the message.

DSNU1631I *csect-name* - BACKUP SYSTEM UTILITY FAILED BECAUSE THE DFSMSHsm CALL FAILED WITH RC = X'*hsm-rc*'. PLEASE SEE THE JOB LOG FOR DFSMSHsm MESSAGES INDICATING THE CAUSE OF THE ERROR

Explanation: The call to DFSMSHsm to perform the Backup failed with the return code indicated in the message. The job log will contain error messages issued by DFSMSHsm that will indicate the cause of the error.

Severity: 8 (error)

System Action: The utility is terminated.

System Programmer Response: Review the output and, in particular, the DFSMSHsm messages to determine the cause of the failure.

Problem Determination: The DFSMSHSM message appearing in the job log will indicate the cause of the failure.

DSNU1632I *csect-name* - DISPLAY REQUEST WITH MEMBER SPECIFICATION WAS MADE BUT THE SYSTEM IS IN SYSTEM RECOVER-PENDING STATE. THE MEMBER SPECIFICATION IS IGNORED AND ONLY THOSE UTILITIES RUNNING ON THE SYSTEM FROM WHICH THE DISPLAY COMMAND WAS ISSUED WILL BE DISPLAYED

Explanation: When a system is in the system RECOVER-PENDING state it isn't possible to determine which utilities are executing on members in a data sharing group other than the member on which the DISPLAY command is running. The MEMBER specification is ignored and only those utilities executing on the system on which the command is running are displayed.

Severity: 0 (informational)

System Action: Display any utilities running on the system on which the command is running.

DSNU1633I *csect-name* - BACKUP SYSTEM UTILITY FAILED BECAUSE UNABLE TO WRITE BSDS RECORD DUE TO VSAM ERROR: RC = X'*return code*', RSN = X'*reason code*

Explanation: The attempt to update or insert the BACKUP SYSTEM history BSDS record failed due to an error during VSAM processing. The VSAM return and reason codes are indicated in the message.

Severity: 8 (error)

System Action: The utility is terminated.

System Programmer Response: The return and reason code in the message will identify the VSAM error that occurred when attempting to write out the BSDS record. Correct the problem and resubmit the job.

DSNU1634I *csect-name* - RESTORE SYSTEM UTILITY FAILED BECAUSE THE SYSTEM IS IN TRACKER MODE AND LOGONLY WAS NOT SPECIFIED

Explanation: The RESTORE SYSTEM utility cannot be run on a tracker system unless the LOGONLY keyword is specified.

Severity: 8 (error)

System Programmer Response: Change the RESTORE SYSTEM utility control statements to include the LOGONLY parameter.

DSNU3330I *csect-name* - The *utility-name* UTILITY IS PART OF A SEPARATELY LICENSED FEATURE WHICH WAS NOT FOUND ON THIS SYSTEM.

Explanation: DB2 could not find the specified utility in the load library concatenation specified in the submitted JCL. The specified utility is part of an optional feature of DB2.

Severity: 8 (error)

System Action: Utility processing does not initiate.

User Response: Obtain and install one of the optional utility features (JDB771K or JDB771M) that contains the utility you wish to execute.

DSNU3331I *csect-name* - THERE ARE *n* DAYS REMAINING IN THE TRIAL PERIOD FOR THE *utility-name* UTILITY

Explanation: The specified utility is part of an optional feature of DB2, and it will remain active for a 90-day trial period. This message displays the number of days remaining in the trial period.

Severity: 0 (informational)

System Action: Utility processing continues.

User Response: To continue executing the utility after the trial period, obtain and install one of the optional utility features (JDB771K or JDB771M) that contains the utility.

DSNU3332I *csect-name* - **THE EVALUATION
PERIOD FOR THE *utility-name* UTILITY
HAS EXPIRED**

Explanation: The specified utility is part of an optional feature of DB2, and it has remained active for a 90-day trial period. The trial period has expired.

Severity: 8 (error)

System Action: Utility processing does not initiate.

User Response: Obtain and install one of the optional utility features (JDB771K or JDB771M) that contains the utility you wish to execute.

Chapter 20. DSNV... messages

DSNV029E LOAD MODULE *module-name* DOES NOT HAVE AMODE(31) ATTRIBUTE

Explanation: During DB2 startup, Agent Services establishes the tasking structure for the control and resource manager address spaces. Three load modules, DSNVEUS3, DSNVEUS4, and DSNVRCT, are loaded and attached as the control programs for each subtask created. All three load modules must have been link-edited with the attributes AMODE(31) and RMODE(ANY). At least one of the modules did not have the 31-bit addressing attribute when it was loaded. The 'module-name' in the error message is the alias name of the first load module whose addressing mode was invalid.

System Action: DB2 startup is terminated.

System Programmer Response: Verify that all installation and maintenance activities against these modules were executed using SMP, that the JCLIN for SMP includes the correct AMODE and RMODE control statements, and that the Linkage Editor provided with the Data Facility Product (DFP) for the version of MVS being used was invoked by SMP for the link-edits. Correct the procedure or JCL which caused the error and rerun the necessary SMP jobs.

Operator Response: Notify the system programmer of the failure.

Problem Determination: A DB2 dump was requested to a SYS1.DUMP data set.

Load module names and aliases are as follows:

Load module	Alias
DSNVEUS3	DSNVEU3I
DSNVEUS4	DSNVEU4I
DSNVRCT	DSNVRCTI

The MVS service aid AMBLIST provides Linkage Editor module attributes in the summary section of the LISTLOAD function output.

DSNV086E DB2 ABNORMAL TERMINATION REASON=*xxxxxxx*

Explanation: The DB2 subsystem is being abended, because an error that cannot be corrected has occurred. This message, which is not automatically deleted from the operator console, is issued during DB2 abnormal termination. 'REASON' is the subsystem termination reason code. If DB2 abnormal termination is invoked multiple times, the subsystem termination reason code that accompanies this message is the reason associated with the first invocation. For additional information, look up the reason code in Part 4, "Section 4. DB2 Codes," on page 773.

System Action: Abnormal termination processing continues.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: This message is accompanied by one or more dumps. Obtain a copy of SYS1.LOGREC after DB2 completely terminates; also obtain a copy of the SVC dump(s). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

DSNV400I ARCHIVE LOG WITH MODE(QUIESCE) CURRENTLY ACTIVE

Explanation: An -ARCHIVE LOG MODE(QUIESCE) command is currently active. This message follows the DSNV401I message as part of the -DISPLAY THREAD command report.

System Action: This message is issued as information only. The message indicates that the -ARCHIVE LOG MODE(QUIESCE) command has not completed, and consequently, updates against DB2 resources have been temporarily suspended. This may result in active threads being suspended awaiting termination of the quiesce period. DB2 processing otherwise continues normally.

DSNV401I DISPLAY THREAD REPORT FOLLOWS

Explanation: This message is always generated as the title for the DISPLAY THREAD command report output. It precedes the other messages generated by this command.

System Action: Processing continues normally.

DSNV402I ACTIVE THREADS-

Explanation: This message precedes the listing of active threads.

The series of messages DSNV402I through DSNV405I provide the formatted report for the -DISPLAY THREAD TYPE(ACTIVE) when the status of active threads is requested.

The series of messages DSNV444I through DSNV448I augment the formatted report for the -DISPLAY THREAD TYPE(ACTIVE) when LOCATION, LUWID, or DETAIL keywords are used to show distributed activity.

System Action: Processing continues normally.

DSNV403I **NAME ST A REQ**
 ID AUTHID PLAN ASID TOKEN

Explanation: This message displays the column headings for the list of threads generated by the -DISPLAY THREAD TYPE(ACTIVE) or -DISPLAY THREAD TYPE(INACTIVE) command.

The message number and subsystem recognition character are not included in this message.

System Action: Processing continues normally.

DSNV404I *name status act-ind req-ct corr-id auth-id*
 pname asid token

Explanation: This message provides the status information on an active or inactive thread and is part of the response to the -DISPLAY THREAD command. Information provided is:

name A 1- to 8-character variable representing the 'connection name' used to establish the thread. For distributed database access threads, this field contains the following:

- For threads using system-directed access and for threads using application-directed access from a DB2 Version 3 or later requester, this variable displays the connection name of the thread at the requesting location.
- For threads using application-directed access from a non-DB2 requester or from a DB2 Version 2 Release 3 requester, this variable displays the constant SERVER.
- If the thread has a status of PT, the connection name contains blanks if the thread of the originating task is running on the same DB2. This helps to show that these parallel tasks are related to the originating task above. If the parallel task is running on a different DB2 for the originating task, then the connection name will be supplied and the entry will be followed by DSNV443I.

If the thread has a status of D, the connection name might be either the connection name for the allied address space or the DB2 subsystem name.

status A 1- or 2- character connection status code with the following values:

- D** The thread is in the process of termination as a result of the termination of the associated allied task. If this thread is also the last (or only) DB2 thread for the address space, the associated allied task is placed in a wait state.
- DA** The database access thread slot is currently not associated with a remote

connection and is available to be assigned to a type 2 inactive thread.

- DI** The thread is disconnected from an execution unit. There is no TCB associated with the DB2 thread. This state is only valid when 'connection name'=RRSAF.
 - N** The thread is in either IDENTIFY or SIGNON status.
 - PT** A parallel task thread was established (plan allocated).
 - QD** The thread is queued for termination as a result of the termination of the associated allied task. If this thread is also the last (or only) DB2 thread for the address space, the associated allied task is placed in a wait state.
 - QT** The CREATE THREAD request was queued. The associated allied task is placed in a wait state.
 - R2** A distributed thread is performing a remote access on behalf of a request from another location. The thread is currently a type 2 inactive thread and is waiting for an agent to become available to process.
 - RA** The distributed thread is performing a remote access on behalf of a request from another location.
 - RK** A distributed thread is performing remote access on behalf of a request from another location. The thread is performing an operation that invoked Kerberos services. This status is displayed until Kerberos services returns control to DB2.
 - RN** A distributed thread is performing a remote access on behalf of a request from another location. The request actually accesses data at yet another (DB2) location, so the thread was suspended because DB2 must first connect to the partner location (establish DB2 system conversations with the partner).
- When another DB2 site is being contacted for the first time using system-directed access, DB2 must establish DB2 system conversations with the partner location. A request is presented to a DB2 DDF service task that establishes a system conversation. The thread is suspended until the request is processed. If the thread remains in this status for an extended period of

time, the DB2 service task that establishes the system conversations might be busy processing other requests. The DB2 DISPLAY LOCATION command ('DISPLAY LOCATION(*) DETAIL') shows you conversation activity for this DB2 system conversation (SYSCON-O) service task.

RQ A distributed thread is performing a remote access on behalf of a request from another location. The thread is suspended because the maximum number of active database access threads (as described by the MAX REMOTE ACTIVE value of the DSN6SYSP macro in the DB2 startup parameter, usually DSNZPARM) was reached. Database access agents (DBAAs) are queued until other DBAAs deallocate or go inactive, providing an available slot. The DBAA resumes when a slot becomes available, and the DBAA is next in the queue. Alternatively, you should consider increasing the MAX REMOTE ACTIVE value.

RX The distributed thread is executing an XA transaction on behalf of a request from another location.

SP A thread is executing within a stored procedure. This status is displayed until the stored procedure terminates and returns control to DB2.

SW A thread is waiting for a stored procedure to be scheduled. This status is displayed until the stored procedure begins execution.

T An allied, nondistributed thread was established (plan allocated).

TN An allied thread was distributed to access data at another DB2 location, but it was suspended because DB2 must first connect to the partner location (establish DB2 system conversations with the partner).

When another DB2 site is being contacted for the first time using system-directed access, DB2 must establish DB2 system conversations with the partner location. A request is presented to a DB2 DDF service task that establishes a system conversation. The thread is suspended until the request is processed. If the thread remains in this status for an extended period of

time, the DB2 service task that establishes the system conversations might be busy processing other requests. The DB2 DISPLAY LOCATION command ('DISPLAY LOCATION(*) DETAIL') shows you conversation activity for this DB2 system conversation (SYSCON-O) service task.

TR An allied thread was distributed to access data at another location.

act-ind An asterisk if the thread is active within DB2; blank otherwise.

req-ct A wraparound counter to show the number of DB2 requests.

corr-id A 1- to 12-character variable representing the recovery 'correlation-id' associated with the thread.

For distributed database access threads, this field contains the following:

- While the thread is being created:
 - '028.DBAA nn' - Where nn ranges from 01 to 99. This indicates that the DBAA is in its connection processing, which consists of establishing the DBAA thread, and validating and verifying the user's ID. Refer to the "Controlling Access to a DB2 Subsystem" chapter in Part 3 (Volume 1) of *DB2 Administration Guide* for descriptions of the authorization checks that might be performed.
 - RACF requests are serialized on one of the DB2 RACF service tasks, which might increase the validation time when multiple DBAAs are being created concurrently.
- After the thread is created:
 - For threads using system-directed access and threads using application-directed access from a DB2 requester, this variable displays the correlation-id name of the thread at the requesting location.
 - For threads using application-directed access from a non-DB2 requester, this variable displays the first twelve characters in the DDM external name (EXTNAM) parameter of the DDM EXCSAT command received as part of the SQL CONNECT.

authorization ID

The authorization ID associated with a signed-on connection. If not signed-on, this field is blank.

pname A 1- to 8-character variable representing the

plan name associated with the thread. For distributed database access threads, this field contains the following:

- For threads using system-directed access and threads using application-directed access from a DB2 Version 3 or later requester, this variable displays the plan name being executed at the requesting location.
- For threads using application-directed access from a non-DB2 requester or from a DB2 Version 2 Release 3 requester, this field displays the constant DISTSERV.

For RRSF connected threads that did not specify a plan name at connect time, the value ?RRSF is displayed. If a thread was not established, this field is blank.

If you receive a system plan in this field, see the information about system plans in message DSNT376I.

- asid* A 1- to 4-character hexadecimal number representing the ASID of the home address space.
- token* A 1- to 6-character number representing the thread token assigned to the thread. For threads with a status value of 'N', this value will be 0.

The message number and subsystem recognition character are not included in this message.

System Action: Processing continues normally.

System Programmer Response: If you have active threads with QD or D status codes, use the information in message DSN3201I to diagnose a possible DB2 problem.

DSNV405I DISPLAY ACTIVE REPORT COMPLETE

Explanation: This message follows messages DSNV402I through DSNV404I augmented by the series of messages DSNV444I through DSNV448I when LOCATION and/or DETAIL keywords are used to show distributed activity. It indicates that the -DISPLAY THREAD TYPE(ACTIVE) report has completed successfully.

The message number and subsystem recognition character are not included in this message.

System Action: Processing continues normally.

DSNV406I INDOUBT THREADS-

Explanation: This message precedes the listing of indoubt threads.

The series of messages DSNV406I through DSNV409I,

DSNV446I, DSNV449I through DSNV453I, DSNV457I through DSNV464I, DSNV466I, DSNV467I provides the formatted report for the -DISPLAY THREAD TYPE(INDOUBT) command when the status of indoubt threads is requested.

System Action: Processing continues normally.

DSNV407I COORDINATOR STATUS RESET URID AUTHID

Explanation: This message displays the column headings for the list of threads generated by the DISPLAY THREAD TYPE (INDOUBT) command, or for the list of Postponed Abort URs generated by the DISPLAY THREAD TYPE(POSTPONED) or DISPLAY THREAD TYPE(*) command.

The message number and the subsystem recognition character are not included in this message.

System Action: Processing continues normally.

DSNV408I *coordinator status reset urid authid*

Explanation: This message lists status information on an indoubt thread or for a Postponed Abort UR.

coordinator

The name of the two-phase commit coordinator.

- If the thread is an allied thread, the coordinator name is either the IMS connection name, the CICS connection name, RRS (for Resource Recovery Services attachment facility connected threads) or the location name of the local DB2 (if it is not one of the above). DSNV449I is displayed if the coordinator is IMS or CICS.
- If the thread is a database access thread, the coordinator name takes one of four forms:
 - location:luname -- where "location" is the coordinator's relational database name and "luname" is the coordinator's SNA LU name.
 - location:port -- where "location" is the coordinator's relational database name and "port" is the coordinator's TCP/IP port number for two-phase commit resynchronization.
 - <luname>luname -- where "luname" is the coordinator's SNA LU name.
 - nnn.nnn.nnn.nnn:port -- where "nnn.nnn.nnn.nnn" is the coordinator's IP address and "port" is the coordinator's TCP/IP port number for two-phase commit resynchronization.
- If the thread is distributed, message DSNV467I is included in the display. This

message shows the logical unit of work id and the local token that identifies the distributed thread.

status The status of the thread.

A status of ABORTED is not displayed unless DB2 believes a participant using PN protocols might be indoubt. If the status of a thread for a logical unit of work at a participant is INDOUBT, COMMITTED-H, or ABORTED-H, and the coordinator is a DB2 location that has not cold started, then the lack of any information about the thread in a DISPLAY THREAD(INDOUBT) report indicates that the decision at the coordinator was to abort the logical unit of work. In all other cases, a DSNV408I message for the thread is displayed.

- INDOUBT: The thread is indoubt and continues to appear in the display until all indoubt resolution responsibilities are complete. Additional detail lines that might appear in the report are:
 - DSNV450I and DSNV446I: The names of downstream participants who might be indoubt.
 - DSNV452I or DSNV453I: A heuristic action was taken at a downstream participant. DSNV452I or DSNV453I continues to appear in the display until DB2 resolves the indoubt status with the coordinator. If the coordinator decision is the same as the heuristic decision of the partner, then the detail line is no longer displayed. If the coordinator status is COMMITTED and the heuristic decision of the participant is ABORTED, then the message continues to appear in the display until it is deleted with the RESET INDOUBT command. The database administrators at all involved locations need to know that heuristic damage occurred and at which location.
 - DSNV466I: For a database access thread participant, the elapsed time that the thread was indoubt.
- COMMITTED: The thread is committed. This status is displayed when DB2 is the coordinator and has downstream participants that might be indoubt. The thread appears in the display until all downstream participants complete indoubt resolution. Detail lines DSNV450I and DSNV446I list the downstream participants that have pending resolution. Database locks held for the thread were released.

If a participant resolved the indoubt thread with a heuristic decision, and the decision was ABORT (rollback), detail line DSNV453I

is displayed. This detail line contains the name of the participant and the heuristic decision that it made. Since the coordinator committed and the participant aborted, this indicates heuristic damage. This line continues to appear in the display until it is deleted with the RESET INDOUBT command. The database administrators at all involved locations need to know that heuristic damage occurred and at which location.

- COMMITTED-H: The indoubt thread was heuristically resolved with the RECOVER INDOUBT command. The thread continues to appear in the display until the coordinator is informed of the heuristic decision, and all downstream participants, if any, complete indoubt resolution. Detail lines DSNV450I and DSNV446I list the downstream participants that have pending resolution. Additional detail lines that might appear in the report are:
 - DSNV451I is displayed if resolution with the coordinator is not complete. All database locks were released.
 - DSNV461I is displayed if resolution with the coordinator completed and heuristic damage was detected after the coordinator aborted the logical unit of work. This line continues to appear in the display until it is deleted with the RESET INDOUBT command.
- ABORTED-H: The indoubt thread was heuristically resolved with the RECOVER INDOUBT command. The thread continues to appear in the display until the coordinator is informed of the heuristic decision. Additional detail lines that might appear in the report are:
 - DSNV451I is displayed if resolution with the coordinator is not yet complete. All database locks were released.
 - DSNV461I is displayed if resolution with the coordinator completed and heuristic damage was detected after the coordinator committed the logical unit of work. This line continues to appear in the display until it is deleted with the RESET INDOUBT command.
- ABORTED: This is a coordinator status and DB2 has one or more downstream participants using the Presumed Nothing (PN) protocol that might be indoubt. The thread appears in the display until all downstream PN participants complete indoubt resolution. Detail lines DSNV450I and DSNV446I list the downstream

participants that have pending resolution. Database locks held for the thread were released.

If a participant resolved the indoubt thread with a heuristic decision, and the decision was COMMIT, detail line DSNV452I is displayed. This detail line contains the name of the participant and the heuristic decision that it made. Since the coordinator aborted and the participant committed, this indicates heuristic damage. This line continues to appear in the display until it is deleted with the RESET INDOUBT command. The database administrators at all involved locations need to know that heuristic damage occurred and at which location.

- ABORT-P: This line represents a Postponed Abort UR. Objects for which this UR has backout work pending are inaccessible (Restart Pending) until the abort is completed (for example, by means of the -RECOVER POSTPONED command).
- ABORT-PSTRT: This line represents a Postponed Abort UR that is currently undergoing -RECOVER POSTPONED processing or automatic DB2 backout processing (requested by restarting with system parameter LBACKOUT = AUTO).

Additional detail lines might appear in an indoubt thread report, as follows:

- Cold Start: When a coordinator cold starts, indoubt participants cannot achieve automatic resolution. A DB2 participant includes message DSNV463I in the display, indicating coordinator cold start and requesting heuristic resolution. Message DSNV458I is included in the display if the coordinator cold started. This message contains information that can be used to identify the thread. This information is provided by the coordinator. A DB2 coordinator provides the connection-name used to establish the thread at the DB2 coordinator and the correlation-id used by that connection.

When a participant cold starts, the coordinator cannot fulfill its indoubt resolution responsibility. A DB2 coordinator displays message DSNV462I indicating participant cold start. The thread continues to be displayed in the report, even after resolution with all other indoubt participants, if any. The RESET INDOUBT command must be used to purge this thread from the report. The reason for this is that the cold starting participant might have been coordinating downstream participants that are now indoubt. The database administrator at these participants might need to know the

status of the thread at the coordinator so correct heuristic decisions can be made.

- Protocol Errors: A communications protocol error might occur during sync point processing and during indoubt resolution processing. These protocol errors are permanent and prevent completion of the automatic indoubt resolution process.

An indoubt display thread report shows these protocol errors, as follows:

- A DB2 coordinator detecting a sync point protocol error by a participant, such that the coordinator believes that the participant might be indoubt, adds this thread to the indoubt thread display, if the decision is to commit. Message DSNV460I is included in the display indicating the protocol error and the potential need for heuristic action at the participant. The thread continues to be included in the report until the entry is purged with the RESET INDOUBT command. If the participant is actually indoubt, the database administrator at the participant needs to know the status of the thread so that the correct heuristic decision can be made.
- A DB2 participant detecting a sync point protocol error by a coordinator when the participant is indoubt adds this thread to the indoubt thread display. Message DSNV459I is included in the display, indicating the protocol error and requesting heuristic resolution. The thread continues to be included in the report until the thread is resolved with the RECOVER INDOUBT command. The DBA at the participant might need to contact the coordinator to determine the status of the thread.
- If a DB2 coordinator detects an indoubt resolution protocol error by a participant, message DSNV457I is included in the indoubt report, indicating the error and requesting heuristic action at the participant. The thread continues to be included in the report until the entry is purged with the RESET INDOUBT command. The database administrator at the participant needs to know the status of the thread so that the correct heuristic decision can be made.
- If a DB2 participant detects an indoubt resolution protocol error by a coordinator, and the thread status is INDOUBT, message DSNV464I is included in the indoubt report, indicating the error and requesting heuristic action. The thread continues to be included in the report

until the thread is resolved with the RECOVER INDOUBT command.

- reset** This column contains YES if the RESET INDOUBT command must be used to purge this thread from the indoubt display.
- urid** The RBA of the DB2 recovery log. This point is the beginning of recovery logging for this thread.
- authid** The primary authorization-id associated with the thread.

System Action: Processing continues.

DSNV409I DISPLAY INDOUBT REPORT COMPLETE

Explanation: This message follows messages DSNV406I through DSNV408I and indicates that the -DISPLAY THREAD TYPE(INDOUBT) report was generated successfully.

The message number and subsystem recognition character are not included in this message.

System Action: Processing continues normally.

DSNV410I NO CONNECTION FOUND FOR NAME=connection-name

Explanation: The -DISPLAY THREAD TYPE(ACTIVE) or TYPE(INACTIVE) command was unable to find any connection associated with 'connection-name'. This message is generated once for each requested connection name that was not found.

System Action: Command processing continues.

DSNV411I NO THREADS FOUND FOR NAME=connection-name

Explanation: The -DISPLAY THREAD TYPE(ACTIVE) or TYPE(INACTIVE) command was unable to locate any threads associated with 'connection-name'. This message is generated once for each connection name for which no threads were found.

System Action: Command processing continues.

DSNV412I csect-name NO INDOUBT THREADS FOUND FOR NAME=connection name

Explanation: In this message, 'csect-name' is the name of the command program CSECT that issued the message. 'NAME' is the connection name specified on the command.

The named command was unable to locate any indoubt threads associated with the 'connection name'. This message is generated once for each 'connection name' for which no threads were found.

System Action: Command processing continues.

DSNV413I csect-name verbname pkwname TERMINATED, DEFAULT UNAVAILABLE

Explanation: This message indicates that the command 'verbname' abnormally terminated because the command was entered from an MVS console and a required parameter was not supplied with the command.

csect-name

The name of the command program CSECT that issued the message.

verbname

The command verb as entered by the requester. The error depends on which command was entered.

- DISPLAY THREAD - neither the 'connection-name', LOCATION, nor LUWID was specified.
- RECOVER INDOUBT - neither 'connection-name' nor LUWID was specified.

pkwname

The command primary keyword as entered by the requester.

System Action: Command processing terminates.

Operator Response: Reenter the command specifying one of the required parameters.

DSNV414I THREAD xxx COMMIT SCHEDULED

Explanation: In this message, 'xxx' is the recovery identifier specified with the -RECOVER INDOUBT command to identify the indoubt thread and is one of the following:

ID= The recovery correlation-id specified with the command.

NID= The recovery network-id specified with the command.

LUWID = Luwid=token indicates the luwid and token that identify the thread specified with the command.

System Action: The thread specified on the -RECOVER INDOUBT command is scheduled for COMMIT recovery action.

DSNV415I THREAD xxx ABORT SCHEDULED

Explanation: In this message, 'xxx' is the recovery identifier specified with the -RECOVER INDOUBT command to identify the indoubt thread and is one of the following:

ID= The recovery correlation-id specified with the command.

NID= The recovery network-id specified with the command.

LUWID = The luwid=token indicates the luwid and token that identify the thread specified with the command.

DSNV416I • DSNV422I

The thread specified on the -RECOVER INDOUBT command is scheduled for ABORT recovery action.

System Action: Command processing continues.

DSNV416I THREAD NID=*net-node.number* IS INVALID

Explanation: In this message, 'net-node' is the recovery 'network-id' specified with the command.

The -RECOVER INDOUBT command (NID=*net-node.number*) determined that the input format for the specified network-id is invalid.

System Action: Command processing continues.

Operator Response: Prior to reentering the command, ensure that the network-id entered is in the correct format as specified on the -RECOVER INDOUBT command.

DSNV417I THREAD *xxx* NOT FOUND

Explanation: In this message, '*xxx*' is the recovery identifier specified with the -RECOVER INDOUBT command to identify the indoubt thread and is one of the following:

ID= The recovery correlation-id specified with the command

NID= The recovery network-id specified with the command

LUWID =
The luwid or token specified with the command

The -RECOVER INDOUBT command was unable to locate the specified thread to be scheduled for recovery. Either the thread identifier is incorrect, or the thread no longer is in an indoubt state.

System Action: Command processing continues.

Operator Response: Before reentering the command, ensure that the thread still is in an indoubt state.

DSNV418I RECOVER INDOUBT REJECTED FOR ID= *correlation-id*

Explanation: In this message, 'ID=' indicates the recovery 'correlation-id' specified with the command.

The -RECOVER INDOUBT command determined that more than one 'network-id' is associated with the specified 'correlation-id'. No recovery action is taken against the indoubt threads associated with the 'correlation-id'.

System Action: Command processing continues.

Operator Response: To indicate the specific indoubt thread to be scheduled for resolution, the 'network-id' associated with the thread must be specified.

DSNV419I NO CONNECTIONS FOUND

Explanation: The -DISPLAY THREAD command found no active or inactive connections within the system. This message is generated when the command requests thread information for all (TYPE=*), active (TYPE=ACTIVE), or inactive (TYPE=INACTIVE) connections within the system, but no active or inactive connections currently exist.

System Action: Command processing continues.

DSNV420I NO INDOUBT THREADS FOUND

Explanation: The -DISPLAY THREAD command found no indoubt threads within the system. This message is generated when the command requests information about all (*) threads currently residing within an indoubt state (TYPE=INDOUBT) within the system, but no threads currently exist within this state.

System Action: Command processing continues.

DSNV421I DISPLAY TERMINATED WITH MAX LINES

Explanation: This message indicates the -DISPLAY THREAD TYPE(ACTIVE) or the DISPLAY THREAD TYPE(INACTIVE) report was truncated. The report was generated in response to a command from an MVS console and more than 254 response messages were generated. Only 254 response messages are returned.

The message number and subsystem recognition character are not included in this message.

System Action: The truncated report is written to the MVS console.

Operator Response: Reissue the -DISPLAY THREAD request specifying a specific connection name, location, luwid, or a combination of these, as appropriate, to further reduce the display.

DSNV422I DISPLAY INDOUBT TERMINATED WITH MAX LINES

Explanation: This message indicates the -DISPLAY THREAD TYPE(INDOUBT) report was truncated. The report was generated in response to a command from an MVS console and more than 254 response messages were generated. Only 254 response messages are returned.

The message number and subsystem recognition character are not included in this message.

System Action: The truncated report is written to the MVS console.

Operator Response: Reissue the -DISPLAY THREAD request specifying a specific connection name.

DSNV423I DISPLAY THREAD MESSAGE POOL SIZE EXCEEDED

Explanation: The virtual storage requirement needed to generate a -DISPLAY THREAD response display exceeded the maximum size of the message buffer pool.

System Action: Processing is terminated.

User Response: Reissue the -DISPLAY THREAD request specifying TYPE(INDOUBT), TYPE(ACTIVE), or TYPE(INACTIVE) and a specific connection name, location, luwid, or a combination of these, as appropriate, to further reduce the display.

Operator Response: Refer to the User Response.

DSNV424I INACTIVE THREADS-

Explanation: This message precedes the listing of inactive threads.

The series of messages DSNV402I through DSNV405I provide the formatted report for the -DISPLAY THREAD TYPE(INACTIVE) when the status of inactive threads is requested.

The series of messages DSNV444I through DSNV448I augment the formatted report for the -DISPLAY THREAD TYPE(INACTIVE) when LOCATION, LUWID, or DETAIL keywords are used to show idle distributed threads.

System Action: Processing continues normally.

DSNV425I DISPLAY INACTIVE REPORT COMPLETE

Explanation: This message follows messages DSNV424I, DSNV403I and DSNV404I, which are augmented by the series of messages DSNV444I through DSNV448I when LOCATION and/or DETAIL keywords are used to show idle distributed threads. It indicates that the -DISPLAY THREAD TYPE(INACTIVE) report completed successfully.

The message number and subsystem recognition character are not included in this message.

System Action: Processing continues normally.

DSNV426I *csect-name* THREAD *token* HAS BEEN CANCELED

Explanation: This message is issued in response to the CANCEL THREAD command. The thread is scheduled for termination.

System Action: The specified thread is scheduled for termination. The termination of the thread does not occur unless processing is occurring within DB2.

DSNV427I *csect-name* INVALID THREAD *token* SPECIFIED

Explanation: This message is issued in response to the CANCEL THREAD command. No thread with the specified *token* was found.

System Action: The specified thread is not canceled.

User Response: Determine the correct *token* of the thread you want to cancel and reissue the command. You can use the -DISPLAY THREAD command to display all thread activity.

DSNV428I *csect-name* THREAD *token* WAS PREVIOUSLY CANCELED

Explanation: The thread with the specified token was previously canceled by either the CANCEL THREAD or CANCEL DDF THREAD command, or is already in the process of termination.

The CANCEL command terminates the thread only if the thread is processing in DB2 or is currently suspended by DB2. The thread might not be processing in DB2 in these situations:

- The thread is processing in the application and has not made a request to DB2. The DISPLAY THREAD command indicates this.
- The user placed the thread on an MVS resource using the ENQUE command. The CANCEL command has no effect on the thread until ENQUE completes and the thread returns to DB2.
- The thread is processing in VTAM and is waiting for a response from a partner. The DISPLAY THREAD DETAIL command indicates this. The thread does not terminate until VTAM returns to DB2. VTAM commands, which will terminate the session or LU, can be used to cause VTAM to return to DB2.

**DSNV429I V429 CALLING PROCEDURE=*proc*,
LOAD MODULE=*loadmod*,
PROC=*jclproc*, ASID=*asid*,
WLM_ENV=*wlmenv***

Explanation: This message appears in the output of the DISPLAY THREAD command when a thread is running a stored procedure.

proc The name of the stored procedure the SQL application is running.

loadmod The MVS load module associated with the stored procedure. This field will contain blanks until the load module name has been determined.

jclproc The name of the JCL PROC used to start the address space where the stored procedure is running. This field will contain blanks until the stored procedure has been assigned to a specific stored procedure address space.

asid The MVS ASID of the address space where the stored procedure is running. This field will contain 0000 until the stored procedure has been assigned to a specific stored procedure address space.

wlmenv The name of the WLM application environment where the stored procedure is running. If it is running in the DB2-established stored procedure address space, this field will contain blanks.

System Action: The DISPLAY THREAD command continues processing.

DSNV431I POSTPONED ABORT THREADS

Explanation: This message precedes the listing of Postponed Abort URs.

The series of messages DSNV431I, DSNV407I, DSNV408I and DSNV432I provide the formatted report for the -DISPLAY THREAD TYPE(POSTPONED) command. The series also provides a section of the formatted report for -DISPLAY THREAD TYPE(*).

DSNV432I DISPLAY POSTPONED ABORT REPORT COMPLETE

Explanation: This message follows messages DSNV431I and DSNV408I and indicates that the -DISPLAY THREAD TYPE(POSTPONED) report was completed successfully, or that the section of the -DISPLAY THREAD TYPE(*) report for Postponed Abort URs has been completed successfully.

System Action: Processing continues normally.

DSNV433I NO POSTPONED ABORT THREADS FOUND FOR NAME = *connection name*

Explanation: The -DISPLAY THREAD command found no postponed abort URs for the named connection. This message is generated when the command requests information about threads for the given connection name currently residing within a postponed abort state, but none currently exist within this state.

System Action: Command processing continues.

DSNV434I *csect-name* NO POSTPONED ABORT THREADS FOUND

Explanation: This message is issued by the RECOVER POSTPONED command, automatic online backout processing (invoked by restarting with system parameter LBACKOUT=AUTO), and also by the DISPLAY THREAD TYPE(POSTPONED) command. It indicates that no postponed abort threads were found to process. The '*csect-name*' is the name of the command program CSECT that issued the message.

System Action: The command (or auto-resolution processing) completes normally.

DSNV435I *action* OF POSTPONED ABORT URS HAS BEEN SCHEDULED

Explanation: This message is issued by the RECOVER POSTPONED command, and also by automatic online backout processing (invoked by restarting with system parameter LBACKOUT=AUTO). It indicates that postponed abort URs exist and their backout processing will proceed asynchronously.

ACTION

Description of request

RESOLUTION

Indicates that backout processing for the postponed units of recovery has been requested.

CANCELLATION

Indicates that the CANCEL option was specified on the RECOVER POSTPONED command and that the backout process will be canceled.

System Action: The command (or auto-resolution processing) completes normally.

DSNV436I PGM=*collection.package*, SEC=*section*, STMNT=*statement*

Explanation: This message appears in the output of a DISPLAY THREAD report when a detail display is specified. If DB2 is currently processing an SQL statement, this message identifies the program which contains that statement and displays the SQL statement being executed.

collection

The collection ID associated with *package*. If the SQL statement being executed is associated with a DBRM that was directly bound as part of the plan, and is not associated with a package, then *collection* is not applicable and is indicated by an asterisk (*).

package

The package or DBRM member.

section

The SQL section number associated with the package or DBRM.

statement

The SQL statement number associated with the package or DBRM.

The message number and subsystem recognition character are not included in this message. However, V436 is included in the message text to identify the message.

System Action: Command processing continues.

DSNV437I **V437-WORKSTATION=wsname, USERID=user-id, APPLICATION NAME=appl-name**

Explanation: This message appears in the output of a DISPLAY THREAD report when a non-detail display is specified. If the appropriate information is provided by the client system, this message is issued and identifies more specific information regarding the identity of the end-user associated with this thread.

wsname

The client end-user workstation name.
If not provided by the client system, this field contains an asterisk.

user-id The client end-user user-id.

If not provided by the client system, this field contains an asterisk.

appl-name

The client end-user application name.
If not provided by the client system, this field contains an asterisk.

This message number and subsystem recognition character are not included in this message. However, V437 is included in the message text to identify the message.

System Action: Command processing continues.

DSNV439I *csect-name* **NOBACKOUT OPTION INVALID FOR THREAD 'token'**

Explanation: This message is issued in response to the CANCEL THREAD command with the NOBACKOUT option. The NOBACKOUT option will not be honored because the canceled thread is part of a global transaction.

System Action: The specified thread is not canceled.

DSNV440I **V440-XID=xid**

Explanation: The thread is managed by an XA transaction manager, such as Websphere, which identifies the transaction with an *xid*. The XID is provided to allow correlation with the XA transaction manager. DB2 uses both the logical unit of work identifier, *luwid*, and the XA transaction identifier, *xid*, to coordinate and recover transactions. DB2 is a participant in an XA transaction that is executing on behalf of an XA transaction manager.

The XID is provided in its hexadecimal representation, and consists of the following elements:

- A 4-byte *Format ID*.

- A 4-byte *Global Transaction Identifier length (gtrid_length)*.
- A 4-byte *Branch Qualifier length (bqual_length)*.
- Variable-length data that is composed of at most two contiguous components: A *Global Transaction Identifier (gtrid)*, and a *Branch Qualifier (bqual)*. The *gtrid_length* element specifies the number of bytes (1-64) that constitute the *gtrid*, starting at the first byte of the data element. The *bqual-length* element specifies the number of bytes (up to 64) that constitute *bqual*, starting at the first byte after *gtrid*.

The message number and subsystem recognition character are not included in this message. However, V440 is included in the message to identify the message.

System Action: Command processing continues.

DSNV441I **V441-ACCOUNTING=ACCTNG**

Explanation: This message appears in the output of the DISPLAY THREAD report when a detail display is specified. If the appropriate information is provided by the client system, this message is issued and identifies more specific information regarding the identity of the end-user that is associated with this thread.

acctng The client end-user accounting information. If the appropriate information is provided by the client system, and if DB2 recognizes the client's format of the information, DB2 will display the user provided portion of the accounting information.

The message number and subsystem recognition character are not included in this message. However, V441 is included in the message text to identify the message.

System Action: Command processing continues.

DSNV443I **V443-PARALLELISM COORDINATOR=member-name, ORIGINATING TOKEN=token**

Explanation: This message follows a DSNV404I message for each parallel task thread that is running on an assisting DB2. This message gives the DB2 member name and the originating task's thread token.

member-name

The coordinating DB2 member where the originating task thread is running.

token The originating task thread token.

The message number and subsystem recognition character are not included in this message. However, V443 is included in the message text to identify the message.

System Action: Command processing continues.

DSNV444I V444-luwid=token ACCESSING DATA AT.

Explanation: This message follows a DSNV404I message for each thread that was distributed to other locations when a nondetail display is specified. This message gives the logical-unit-of-work identifier for the distributed thread, followed by an equal sign (=) and a token, which can be used in place of luw-id in any DB2 command that accepts luw-id as input. Message DSNV446I follows with the names of the locations associated with this 'luw-id'.

luwid=token

The global logical unit of work id and the local token that identifies the thread. If the thread becomes indoubt, a new token is assigned for the indoubt thread.

The message number and subsystem recognition character are not included in this message. However, V444 is included in the message text to identify the message.

System Action: Command processing continues.

DSNV445I V445-luwid=token ACCESSING DATA FOR location

Explanation: This message follows a DSNV404I message for a database access thread. This message displays the logical-unit-of-work identifier assigned to the database access thread.

luwid=token

The global logical unit of work id and the local token that identifies the thread. If the thread becomes indoubt, a new token is assigned for the indoubt thread.

location

Identifies the requesting site. The value specified in *location* is one of the following:

- The relational database name of the requester or the VTAM LU name of the requester (<luname>), a colon (":") delimiter, and the LU name of the requester for SNA connections.
- The dotted decimal IP address of the requester (nnn.nnn.nnn.nnn) for TCP/IP connections.

The message number and subsystem recognition character are not included in this message. However, V445 is included in the message text to identify the message.

System Action: Command processing continues.

DSNV446I V446--location-i location-j ...

Explanation: This message is a continuation of message DSNV444I or message DSNV450I and provides a list of 'location-i'.

location-i

Identifies the name of a remote DBMS at which data is being accessed or where a thread is indoubt.

The *location-i* string includes two or three tokens delimited by a colon (":"):

- The first token is the partner location name.
- The second token is the partner LU name for an SNA connection, or the dotted decimal IP address for a TCP/IP connection (nnn.nnn.nnn.nnn).
- The third token only appears if the second token is an IP address in which case the third token is a port number.

When the message appears after message DSNV450I, the port number represents a resync port number. Otherwise the message appears after a DSNV444I message in which case it represents an SQL port number.

A 'location-i' identifier is repeated for each DBMS where data is being accessed or where a thread is indoubt.

The message number and subsystem recognition character are not included in this message. However, V446 is included in the message text to identify the message.

System Action: Command processing continues.

DSNV447I V447--LOCATION SESSID A ST TIME

Explanation: This message forms the heading for the listing of distributed active or inactive threads in message DSNV448I. Items in this part of the heading are:

LOCATION

Heading for the associated location names

SESSID

Heading for the associated VTAM-defined session identifiers

A

Heading for the associated active indicators

ST

Heading for the associated status indicators

TIME

Heading for the associated time stamps

See message DSNV448I for descriptions of these items.

The message number and subsystem recognition character are not included in this message. However, V447 is included in the message text to identify the message.

System Action: Processing continues normally.

DSNV448I V448--location sessid active status time

Explanation: This message follows the DSNV4471 message for a database access thread or distributed allied thread when a detail display is specified. This message is displayed for each conversation connected to the thread. It lists detailed information about the conversations associated with the thread.

location

If displaying an allied thread, the location is the name of the server; otherwise, it is the name of the requester. The name can be any of the following: the relational database name of the partner, the VTAM LU name of the partner (<luname>), or the dotted decimal IP address of the partner (nnn.nnn.nnn.nnn).

sessid There are two possible values for this field:

- For VTAM partners, this field contains the VTAM-defined session instance identifier of the session on which the conversation is executing. Zeros if the session identifier is not applicable.

VTAM does not supply the entire session id to DB2. The first two digits of the session id are incorrect. Therefore, the session id as presented in this message is not acceptable in VTAM commands. The VTAM DISPLAY NET,ID=db2-luname,SCOPE=ACT command must be used to obtain the full session ID. The DISPLAY NET command lists all sessions (SID) for the DB2 logical unit. Scan the DISPLAY NET output for the complete SID.

- For TCP/IP connections, this field contains the local DB2 TCP/IP port number, followed by the partner's TCP/IP port number. The two port numbers are separated by a colon (e.g 5001:28191).

active One of the following:

- V** The conversation is active within VTAM or TCPIP.
- W** The conversation is suspended in DB2 waiting for VTAM or TCP/IP notification that the function is complete.

Blank, otherwise.

status Status of the conversation.

This information is presented as two characters, each of which has significance.

First Character

- A** Conversation in allocation.
- C** Session limits are being negotiated with the partner (CNOS) prior to conversation allocation.
- D** Conversation in deallocation.
- R** Receiving
 - At the requesting site, this indicates that the conversation is receiving a response from a request.
 - At the server site, this indicates that the conversation is receiving or waiting for a request.
- S** Sending
 - At the requesting site, this indicates that the conversation can send requests to the server.
 - At the server site, this indicates that the conversation is sending or preparing to send a response.
- X** Exchanging log name information with the partner before conversation allocation to determine if the partner supports protected conversations. If the thread remains in this status for an extended period of time, the DB2 service task that exchanges log names might be busy processing other requests. The DB2 DISPLAY LOCATION command ('DISPLAY LOCATION(*) DETAIL') shows you conversation activity for this (RESYNC) service task.
Blank, otherwise.

Second Character

- 1** Unprotected conversation using system-directed access is active.
- 2** Unprotected conversation using application-directed access is active.
- 3** Protected conversation using system-directed access is active.
- 4** Protected conversation using application-directed access is active.
Blank otherwise.

time The time stamp (yydddhmmssth) of the last message sent or received on the conversation.

The message number and subsystem recognition character are not included in this message. However, V448 is included in the message text to identify the message.

System Action: Command processing continues

DSNV449I V449-HAS NID=*nid* AND ID=*correlation-id*

Explanation: This message is a detail line, which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report.

nid The network-id assigned by IMS or CICS or, if the connection type is RRSAF, the RRS unit of recovery ID (URID)

correlation-id
The correlation-id assigned by IMS or CICS or if the connection type is RRSAF, the correlation-id assigned by the connected application

The message number and subsystem recognition character are not included in this message. However, V449 is included in the message text to identify the message.

System Action: Processing continues normally.

DSNV450I V450-HAS PARTICIPANT INDOUBT AT

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. This message is followed by one or more DSNV446I messages that name the 'locations' where indoubt participant threads are located. The 'luwid' of the indoubt thread is displayed in the preceding DSNV408I message.

The message number and subsystem recognition character are not included in this message. However, V450 is included in the message text to identify the message.

System Action: The thread remains indoubt and processing continues normally.

Operator Response: See message DSNL406I for more information. The indoubt participants displayed can also result from an abnormal termination of this DB2 subsystem.

DSNV451I V451-RESYNC WITH COORDINATOR STILL PENDING

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. When an indoubt thread is manually resolved with the RECOVER INDOUBT command, this message is included in the report if indoubt resolution with the coordinator was not complete. The 'coordinator' and the 'luwid' of the indoubt thread are displayed in the previous DSNV408I message.

The message number and subsystem recognition character are not included in this message. However, V451 is included in the message text to identify the message.

System Action: The thread remains indoubt and

processing continues normally.

DSNV452I V452-HEURISTIC COMMIT BY PARTICIPANT AT LOCATION *location*

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. A decision was made at the participant to force the indoubt thread to commit without waiting for automatic resynchronization to be performed. The 'luwid' of the thread is displayed in the preceding DSNV408I message.

location
The 'location' where the HEURISTIC COMMIT was performed. The 'location' is either the relational database name (location-name), the logical unit name (<luname>), or the dotted decimal IP address (nnn.nnn.nnn.nnn) of the participant.

The message number and subsystem recognition character are not included in this message. However, V452 is included in the message text to identify the message.

System Action: Processing continues normally.

Operator Response: See message DSNL402E for more information.

DSNV453I V453-HEURISTIC ABORT BY PARTICIPANT AT LOCATION *location*

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. A decision was made at the participant to force an indoubt thread to abort without waiting for automatic resynchronization to be performed. The 'luwid' of the thread that was forced to abort is displayed in the preceding DSNV408I message.

location
The 'location' where the HEURISTIC ABORT was performed. The 'location' is either the relational database name (location-name), the logical unit name (<luname>), or the dotted decimal IP address (nnn.nnn.nnn.nnn) of the participant.

The message number and subsystem recognition character are not included in this message. However, V453 is included in the message text to identify the message.

System Action: Processing continues normally.

Operator Response: See message DSNL403E for more information.

**DSNV454I LOCATION OR LUWID KEYWORD
INVALID WHEN DDF NOT STARTED**

Explanation: The -DISPLAY THREAD TYPE(ACTIVE) command was issued with the keyword LOCATION or LUWID and it was found that the distributed data facility (DDF) was not started. The LOCATION or LUWID keyword can be used only if DDF is in operation.

System Action: Command processing is complete.

**DSNV456I INVALID PARAMETER WITH LUWID
KEYWORD *luwid-parameter***

Explanation: The -DISPLAY THREAD TYPE(ACTIVE), -DISPLAY THREAD TYPE(INACTIVE), or the -RECOVER INDOUBT command was issued with the keyword LUWID and its required parameter list. However, one of the parameters was syntactically invalid as a logical-unit-of-work identifier.

System Action: Command processing is complete.

Operator Response: The syntax of the DISPLAY THREAD and RECOVER INDOUBT commands is described in *DB2 Command Reference*. Reenter the command specifying valid LUWID values.

**DSNV457I V457-RESYNC PROTOCOL ERROR
WITH PARTICIPANT *location***

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. Manual resolution of an indoubt thread at the participant location might be required. A protocol error was detected during attempted automatic indoubt resolution with the participant. The 'luwid' of the thread that might require manual resolution at the participant is displayed in the preceding DSNV408I message.

location

The 'location' where manual resolution might be needed. The 'location' is either the relational database name (location-name) of the participant or the logical unit name (<luname>) of the participant.

The message number and subsystem recognition character are not included in this message. However, V457 is included in the message text to identify the message.

System Action: Processing continues normally.

Operator Response: See message DSNL414E for more information.

**DSNV458I V458-CONNECTION-NAME
connection-name CORRELATION-ID
*correlation-id***

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. It is displayed only if message DSNV463I is also displayed.

connection-name

The connection-name assigned by the coordinator if the coordinator is another DB2 system. The constant SERVER if the coordinator is not a DB2 system.

correlation-id

The correlation-id assigned by the coordinator if the coordinator is another DB2 system. The first 12 characters of the EXTNAME parameter of the EXCSAT command sent by the coordinator if the coordinator is not a DB2 system.

The message number and subsystem recognition character are not included in this message. However, V458 is included in the message text to identify the message.

System Action: Processing continues normally.

Operator Response: See message DSNV463I for more information.

**DSNV459I V459-SYNCPOINT PROTOCOL ERROR
WITH COORDINATOR**

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. Manual resolution of an indoubt thread at this location is required. A protocol error was detected during sync point processing with the coordinator. The 'coordinator' and the 'luwid' of the thread that requires manual resolution are both displayed in the preceding DSNV408I message.

The message number and subsystem recognition character are not included in this message. However, V459 is included in the message text to identify the message.

System Action: Processing continues normally.

Operator Response: See message DSNL412I for more information.

**DSNV460I V460-SYNCPOINT PROTOCOL ERROR
WITH PARTICIPANT *location***

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. Manual resolution of an indoubt thread at the participant location might be required. A protocol error was detected during sync point processing with the participant. The 'luwid' of the thread

that might require manual resolution at the participant is displayed in the preceding DSNV408I message.

location

The 'location' where manual resolution might be needed. The 'location' is either the relational database name (location-name) of the participant or the logical unit name (<luname>) of the participant.

The message number and subsystem recognition character are not included in this message. However, V460 is included in the message text to identify the message.

System Action: Processing continues normally.

Operator Response: See message DSNL413I for more information.

DSNV461I V461-RESYNC WITH COORDINATOR SHOWS HEURISTIC DAMAGE

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. Indoubt resolution with the coordinator completed. Heuristic damage was detected at this location because the heuristic decision made at this location is different than the decision made at the coordinator. The 'coordinator' and the 'luwid' of the thread are displayed in the previous DSNV408I message. The 'status' field in the previous DSNV408I message shows the heuristic decision made at this location. This message continues to appear until it is deleted with a RESET INDOUBT command.

The message number and subsystem recognition character are not included in this message. However, V461 is included in the message text to identify the message.

System Action: The thread remains indoubt and processing continues normally.

Operator Response: See message DSNL400E and DSNL401E for more information.

DSNV462I V462-COLD START BY PARTICIPANT AT LOCATION *location*

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. There was an indoubt thread at the participant whose 'luwid' is displayed in the preceding DSNV408I message. DB2 has coordinator responsibility for the indoubt thread and the participant informed DB2 that it performed a cold start operation and lost all knowledge of indoubt threads. There might be heuristic damage at the participant. The RESET INDOUBT command must be used to purge this message from the indoubt report. The reason for this is that the cold-starting participant might have been coordinating downstream participants that are now indoubt. The database administrator at these participants might need

to know the status of the thread at the coordinator, so that correct heuristic decisions can be made.

location

The 'location' where the cold start was performed. The 'location' is either the relational database name (location-name), the logical unit name (<luname>), or the dotted decimal IP address (nnn.nnn.nnn.nnn) of the participant.

The message number and subsystem recognition character are not included in this message. However, V462 is included in the message text to identify the message.

System Action: Processing continues normally.

Operator Response: See message DSNL420E for more information.

DSNV463I V463-COORDINATOR HAS COLD STARTED

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. Manual resolution of an indoubt thread at this location is required. The coordinator for a thread that is indoubt at DB2 was cold started and therefore lost all knowledge of indoubt threads. The 'coordinator' and the 'luwid' of the thread for which manual resolution is required are displayed in the preceding DSNV408I message.

The message number and subsystem recognition character are not included in this message. However, V463 is included in the message text to identify the message.

System Action: Processing continues normally.

Operator Response: See message DSNL411I for more information.

DSNV464I V464-RESYNC PROTOCOL ERROR WITH COORDINATOR

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. Manual resolution of an indoubt thread at this location is required. A protocol error was detected during attempted automatic indoubt resolution with the coordinator. The 'coordinator' and the 'luwid' of the thread that requires manual resolution are both displayed in the preceding DSNV408I message.

The message number and subsystem recognition character are not included in this message. However, V464 is included in the message text to identify the message.

System Action: Processing continues normally.

Operator Response: See message DSNL404E for more information.

DSNV465I V465-THREAD HAS REMAINED IN A PREPARED STATE FOR hh:mm:ss

Explanation: This message might be displayed with a DISPLAY THREAD TYPE (ACTIVE) report. The thread was 'prepared' for the specified period of time. This means that DB2 is the participant in the logical unit of work and completed the first phase of commit and is waiting for the commit or abort decision to be transmitted from the coordinator for the specified period of time. The thread is identified in the preceding DSNV404I message. This message does not appear in a report until the thread was in the prepared state for 60 seconds.

hh:mm:ss

The length of time the thread was prepared (expressed in hours, minutes and seconds). The maximum number of hours reported is 65535, which is roughly 7.5 years. After this time period elapses, the count is reset to zero.

The following actions might be taken to resolve this thread by manual means (that is, take heuristic action) if it is necessary to release locks held by this thread.

- Use the -CANCEL DDF THREAD command to force the thread from the prepared state to the indoubt state. When the thread is indoubt, it appears in the display generated by issuing the DISPLAY THREAD command for type indoubt threads.
- Determine the proper decision (commit or abort) by contacting the coordinator 'location' shown in the display of indoubt threads.
- Use the RECOVER INDOUBT command to heuristically commit or abort the thread.

The message number and subsystem recognition character are not included in this message. However, V465 is included in the message text to identify the message.

This message is issued by the following CSECT: DSNVDTM

System Action: Processing continues normally.

DSNV466I V466-THREAD HAS BEEN INDOUBT FOR hh:mm:ss

Explanation: This message is a detail line which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report. The thread entered the indoubt state at the specified time. This means that DB2 is the participant in the logical unit of work and completed the first phase of commit and is waiting for the commit or abort decision to be transmitted from the coordinator. However, DB2 lost communications with the coordinator. The thread is identified in the preceding DSNV408I message.

hh:mm:ss

The length of time the thread was indoubt (expressed in hours, minutes and seconds). The maximum number of hours reported is 65535, which is roughly 7.5 years. After this time period elapses, the count is reset to zero.

The following actions might be taken to resolve this thread by manual means (that is, take heuristic action) if it is necessary to release locks held by this thread.

- Determine the proper decision (commit or abort) by contacting the coordinator 'location' shown in the display of indoubt threads.
- Use the RECOVER INDOUBT command to heuristically commit or abort the thread.

The message number and subsystem recognition character are not included in this message. However, V466 is included in the message text to identify the message.

System Action: Processing continues normally.

DSNV467I V467-HAS LUWID *luwid=token*

Explanation: This message is a detail line, which might be displayed with a DISPLAY THREAD TYPE (INDOUBT) report.

luwid=token

The global logical unit of work id and the local token that identifies the thread.

The message number and subsystem recognition character are not included in this message. However, V467 is included in the message text to identify the message.

System Action: Processing continues normally.

DSNV471I V471-*luwid=token*

Explanation: This message follows a DSNV404I message and indicates the agent is currently not associated with a remote location. The agent is available to be assigned to process;

- the completion of a queued receive request on a type 2 inactive thread, or
- a request that a new connection be established, after MAX REMOTE ACTIVE has been reached.

This message displays the logical-unit-of-work identifier assigned to the agent.

luwid=token

The global logical unit of work id and the local token that identifies the agent.

The message number and subsystem recognition character are not included in this message. However, V471 is included in the message text to identify the message.

DSNV473I • DSNV479I

This message is issued by the following CSECT:
DSNVDTM

System Action: Command processing continues.

DSNV473I ACTIVE THREADS FOUND FOR MEMBER: *memname*

Explanation: This message precedes the listing of active threads found on another member of a data sharing group as the result of the SCOPE(GROUP) keyword.

Message DSNV473I and the series of messages DSNV403I through DSNV405I provide the formatted report for the -DISPLAY THREAD TYPE(ACTIVE) SCOPE(GROUP) when the status of active threads is requested.

The series of messages DSNV444I through DSNV448I augment the formatted report for the -DISPLAY THREAD TYPE(ACTIVE) SCOPE(GROUP) when LOCATION, LUWID, or DETAIL keywords are used to show distributed activity.

memname

Member name for which thread information is being displayed.

System Action: Processing continues normally.

DSNV474I INDOUBT THREADS FOUND FOR MEMBER: *memname*

Explanation: This message precedes the listing of indoubt threads found on member *memname* as the result of the SCOPE(GROUP) keyword.

Messages DSNV474I, DSNV403I, DSNV404I and DSNV409I provide the formatted report for the -DISPLAY THREAD TYPE(INDOUBT) SCOPE(GROUP) command when the status of indoubt threads is requested.

memname

Member name for which thread information is being displayed.

System Action: Processing continues normally.

DSNV475I INACTIVE THREADS FOUND FOR MEMBER: *memname*

Explanation: This message precedes the listing of inactive threads found on member *memname* as the result of SCOPE(GROUP) keyword.

Messages DSNV475I, DSNV403I, DSNV404I and DSNV425I provide the formatted report for the -DISPLAY THREAD TYPE(INACTIVE) SCOPE(GROUP) when the status of inactive threads is requested.

The series of messages DSNV444I through DSNV448I augment the formatted report for the -DISPLAY THREAD TYPE(INACTIVE) SCOPE(GROUP) when

LOCATION, LUWID, or DETAIL keywords are used to show idle distributed threads.

memname

Member name for which thread information is being displayed.

System Action: Processing continues normally.

DSNV476I POSTPONED ABORT THREADS FOUND FOR MEMBER: *memname*

Explanation: This message precedes the listing of Postponed Abort units of recovery found on another member of a data sharing group as the result of the SCOPE(GROUP) keyword.

Messages DSNV476I, DSNV403I, DSNV404I and DSNV432I provide the formatted report for the -DISPLAY THREAD TYPE(POSTPONED) SCOPE(GROUP) command.

memname

Member name for which thread information is being displayed.

System Action: Processing continues normally.

DSNV478I SCOPE(GROUP) DISPLAY TERMINATED DUE TO IRLM TRUNCATION

Explanation: This message displays as a result of the -DISPLAY THREAD command when the SCOPE(GROUP) keyword is specified and IRLM has truncated the responses gathered from other members. This is a DB2 internal error.

System Action: The -DISPLAY THREAD report is terminated and processing abnormally terminates.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

DSNV479I SCOPE(GROUP) DATA UNAVAILABLE IRLM RETURN CODE: *retcode* IRLM REASON DATA: *reason*

Explanation: This message displays as a result of the -DISPLAY THREAD command when the SCOPE(GROUP) keyword is specified and the IRLM NOTIFY to other members has returned a bad return code.

retcode Return code from IRLM on the Notify request.

reason Reason code diagnostic information from IRLM on the Notify request.

DSNV480I V480-DB2 IS PARTICIPANT FOR RRS
URID=*rrs-urid*

Explanation: This message is a detail line that could be displayed with a DISPLAY THREAD TYPE(ACTIVE) report when the Recoverable Resource Services Unit of Recovery ID (RRS URID) keyword is specified on the command. The RRS URID=*rrs-urid* identifies the RRS URID of the RRS Unit of Recovery that this thread is a participant in.

The message number and subsystem recognition character are not included in this message. However, V480 is included in the message text to identify the message.

System Action: Command processing continues normally.

DSNV481I V481-DB2 IS COORDINATOR FOR RRS
URID=*rrs-urid*

Explanation: This message is a detail line that could be displayed with a DISPLAY THREAD TYPE(ACTIVE) report when the Recoverable Resource Services Unit of Recovery ID (RRS URID) keyword is specified on the command. The RRS URID=*rrs-urid* identifies the RRS URID of the RRS Unit of Recovery that this thread is a coordinator for.

This message is a detail line that also could be displayed with a DISPLAY TYPE(INDOUBT) report when the RRSURID keyword is specified on the command. The RRS URID=*rrs-urid* identifies the RRS URID of the RRS Unit of Recovery that this thread is a coordinator for. When this message appears in an INDOUBT thread report, the preceding DSNV408I message tells the status of the DB2 Unit of Recovery that contains the RRS Unit of Recovery. If manual recovery of the RRS Unit of Recovery is required, the outcome of the DB2 Unit of Recovery can determine whether to COMMIT or ROLLBACK the RRS Unit of Recovery.

The message number and subsystem recognition character are not included in this message. However, V481 is included in the message text to identify the message.

System Action: Command processing continues normally.

Chapter 21. DSNW... messages

DSNW001I ASYNCHRONOUSLY GATHERED DATA IS BEING FORMATTED IN THIS DUMP

Explanation: The subsystem formatting exit is not using DB2 summary dump records for formatting. The formatted control blocks may not contain the same values as they did at the time of the error.

System Action: Dump formatting continues.

System Programmer Response: If you want DB2 summary dump records to be used, do not specify the 'SUMDUMP=NO' operand on the dump control statement.

DSNW002I SUMMARY DUMP RECORDS ARE BEING FORMATTED IN THIS DUMP

Explanation: The subsystem formatting exit is using DB2 summary dump record information to format its control blocks.

System Action: Dump formatting continues.

System Programmer Response: If you do not want DB2 summary dump records to be used in formatting, specify the 'SUMDUMP=NO' and 'SUBSYS=subsystem name' on the dump control statement. Both operands are required.

DSNW004I ONE OR MORE INVALID OPERANDS WERE FOUND ON THE DSNWDMP CONTROL CARD. SUBSYSTEM FORMATTING TERMINATED

Explanation: An invalid operand was found on the dump control statement. The operand was not 'SG', 'LG', 'SA', 'AA', or 'ALL'.

System Action: Control returns to AMDPRDMP or IPCS to terminate the exit.

System Programmer Response: Correct the dump control statement operand specified by message DSNW007I.

DSNW005I DUMP FORMATTER WORK BUFFER (DSNWDBUF) CANNOT BE LOCATED

Explanation: The subsystem formatting exit could not locate its work buffer.

System Action: Control returns to AMDPRDMP or IPCS to terminate the exit.

System Programmer Response: Increase the region size.

DSNW006I THE ERLY BLOCK CANNOT BE ACCESSED OR IT IS INVALID

Explanation: The subsystem formatting exit could not locate its anchor block.

System Action: Control returns to AMDPRDMP or IPCS to terminate the exit.

System Programmer Response: Specify 'SUBSYS=subsystem name', 'SUMDUMP=NO' on the dump control statement. The subsystem name should have between 1 and 4 characters.

DSNW007I THE FOLLOWING OPERAND SPECIFIED ON THE DSNWDMP CONTROL CARD IS INVALID: xxxx

Explanation: The specified operand was not one of the valid dump control statement operands.

System Action: Control returns to AMDPRDMP or IPCS to terminate the exit.

System Programmer Response: Check the dump control statement operands.

DSNW008I THE SCOM CANNOT BE ACCESSED OR IT IS INVALID

Explanation: An error was encountered while trying to retrieve the SCOM.

System Action: Control returns to AMDPRDMP or IPCS to terminate the exit.

System Programmer Response: If 'SUMDUMP=NO' was specified on the dump control statement, omit this operand, and resubmit the job. Otherwise, specify this operand on the dump control statement, and resubmit the job.

DSNW009I THE ADDRESS SPACE REQUESTED IS NOT AVAILABLE

Explanation: The DB2 control blocks for the address space specified on the 'SA=asid' dump operand could not be located.

System Action: Formatting continues if other dump operands were specified.

System Programmer Response: Check the ASID specified on the 'SA=' dump operand. The ASID must be specified in hexadecimal.

DSNW010I THE TRACE RMFT CANNOT BE ACCESSED OR IT IS INVALID

Explanation: The DB2 trace table could not be located.

System Action: Formatting of the DB2 trace table is bypassed, and formatting continues of any other requested dump segment.

System Programmer Response: If 'SUMDUMP=NO' was specified on the dump control statement, omit this operand. Otherwise, specify this operand on the dump control statement. In either case, resubmit the job.

DSNW011I A LARGER REGION SIZE IS REQUIRED FOR THIS JOB

Explanation: The subsystem formatting exit could not obtain a large enough work buffer to process the summary dump records.

System Action: Subsystem formatting continues.

System Programmer Response: Rerun the job, specifying a larger region size in the JCL.

DSNW013I DMPW NOT FOUND IN SUMMARY DUMP

Explanation: The subsystem formatting exit was unable to locate the DMPW control block in the summary record portion of the dump data set. Because the DMPW provides the main anchor block for the dump formatter, processing is terminated.

System Action: Control returns to AMDPRDMP or IPCS to terminate the exit.

System Programmer Response: If this is not a DB2 dump data set, specify 'SUBSYS=xxxx,SUMDUMP=NO' on the dump control statement (where xxxx is the 1- to 4-character subsystem name), so that the subsystem formatting exit does not attempt to use summary dump data.

DSNW014I REQUIRED SUMMARY DUMP RECORDS ARE NOT IN THIS DUMP. WILL ATTEMPT TO FORMAT FROM NON- SUMMARY DUMP

Explanation: Expected data could not be found in the summary dump. This message is issued for information only. Dump formatting continues. However, it will take longer, because a greater volume of data COMMAND PQUIT must be analyzed.

System Action: Formatting is attempted using the full dump instead of the summary dump.

System Programmer Response: Though processing continues, this message is an indication of a problem, and should be pursued as such.

DSNW015I SSCVT NOT LOCATED. CHECK THE SUBSYSTEM NAME ON THE CONTROL CARD

Explanation: In a search through the SSCVT chain, a match of the subsystem name in the SSCVTs and the

subsystem name on the control statement was not found.

System Action: Formatting for the named subsystem is not done.

Operator Response: Check the 'SUBSYS=' operand on the control statement.

System Programmer Response: Correctly specify the subsystem name on the control statement.

DSNW016I THE RMVT CANNOT BE ACCESSED OR IT IS INVALID

Explanation: The subsystem formatting exit could not locate the RMVT. The RMVT is required for formatting the DB2 trace table and a number of other DB2 control blocks.

System Action: Formatting of the DB2 trace table is bypassed, and formatting of other requested dump segments continues.

System Programmer Response: If 'SUMDUMP=NO' was specified on the dump control statement, omit this operand. Otherwise, try specifying this operand on the dump control statement. In either case, resubmit the job.

DSNW017I MAXIMUM STACK LEVEL EXCEEDED

Explanation: This condition is usually caused by the DB2 control block formatter looping. The stack array is depleted and can no longer accommodate control blocks.

System Action: Dump formatting is terminated.

System Programmer Response: Examine the control block chains to see if they are looping. If those chains are not looping, increase the dimension of the stack array.

DSNW018I SUBSYS= NOT SPECIFIED ON THE CONTROL CARD OR MISSING. REQUIRED IF SUMDUMP=NO SPECIFIED

Explanation: The 'SUMDUMP=NO' option was specified, but either the 'SUBSYS=' operand is missing, or it was incorrectly specified.

System Action: Dump formatting is terminated.

Operator Response: Run the dump printing job after the error has been corrected.

DSNW020I UNSUCCESSFUL SEARCH FOR THE ERLY CONTROL BLOCK

Explanation: The 'ERLY' control block could not be located in the dump.

System Action: Dump formatting is terminated.

Operator Response: Check that the 'SUBSYS=' operand was correctly specified, and rerun the job.

System Programmer Response: This message can mean that the 'ERLY' control block has been overlaid. Examine the full dump to determine whether the subsystem is present. If it is, you may be able to determine why the control block could not be located.

DSNW022I THE RESIDENT TRACE WAS NOT ACTIVE AT THE TIME OF DUMP

Explanation: Trace table formatting has been attempted, but no trace table existed at the time of the dump.

System Action: Dump formatting continues with any other control blocks that were to be formatted.

DSNW023I THE TRACE TABLE ENTRY IS OUT OF SEQUENCE OR OVERLAID

Explanation: A trace entry is overlaid by another trace entry of a different timestamp. This message is issued to flag an unrecognized trace entry. This can occur when the oldest entry in the table is the second half of a double entry.

System Action: Formatting of the trace table continues.

DSNW024I TRACE TABLE

Explanation: The trace table follows.

System Action: Trace table formatting follows.

DSNW025I DUMP ACCESS ERROR ACCESSING THE TRACE TABLE IN THE DUMP

Explanation: A nonzero return code was returned from the storage access routine when accessing the trace table.

System Action: Trace table formatting is bypassed.

System Programmer Response: Check the address and ASID of the trace table.

DSNW026I CONTROL BLOCK SUMMARY (ALL ADDRESS SPACES)

DSNW027I CONTROL BLOCK SUMMARY (SINGLE ADDRESS SPACE)

DSNW028I CONTROL BLOCK SUMMARY (LONG FORM GLOBAL)

DSNW029I CONTROL BLOCK SUMMARY (SHORT FORM GLOBAL)

Explanation: Messages DSNW026I through DSNW029I provide descriptive information regarding the type of formatting being produced.

System Action: Dump formatting continues.

DSNW030I DUMP ACCESS ERROR ACCESSING THE CONTROL BLOCK STRUCTURE TABLE IN THE DUMP

Explanation: The control block structure table cannot be accessed from the dump.

System Action: Control block formatting is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNW032I DUMP ACCESS ERROR ACCESSING ANCHOR CONTROL BLOCK

Explanation: The anchor control block cannot be accessed from the dump.

System Action: Control block formatting is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNW033I BEGINNING FORMATTING

Explanation: Formatting of DB2 control blocks is beginning.

DSNW034I TRACE TABLE AND GLOBAL BLOCKS ALREADY DUMPED

Explanation: An indicative dump is being requested. The DB2 trace table and the global blocks have already been dumped with first dump (full dump) for this abend dump (SNAP) invocation. These are, therefore, not dumped in the dump for this task.

DSNW035I WARNING – NO TASK RELATED CONTROL BLOCKS FOR THIS TASK

Explanation: The TCB for which the dump is being requested is not IDENTIFIED to DB2. Task-related control blocks are not dumped. The DB2 trace table and global blocks are dumped only if the 'SYSABEND' DD statement is present and only if this is the first of the dump(s) (full dump) for this abend dump (SNAP) invocation.

System Action: No DB2 formatting is done for the specified task.

DSNW036I CONTROL BLOCKS FOR TASKS ASSOCIATED WITH THE ABOVE RECOVERY COORDINATOR TASK

Explanation: The formatted blocks following this message are associated with TCBs that have IDENTIFIED to DB2 with the 'recovery coordinator = no' option. These TCBs may not have invoked SNAP, but they are associated with the TCB that did.

System Action: Related control blocks are dumped.

System Programmer Response: Examine the control blocks for relevant information.

DSNW037I TASK RELATED CONTROL BLOCKS FOR THIS TASK

Explanation: The formatted blocks following this message are associated with the TCB that is being dumped.

System Action: Relevant control blocks are dumped.

System Programmer Response: Examine the control blocks for relevant information.

DSNW038I END OF FORMATTING

Explanation: Formatting of DB2 control blocks is completed.

DSNW039I SUBSYSTEM FORMATTING COMPLETE FOR THIS DUMP

Explanation: The subsystem formatting routine has completed its processing for this dump data set.

DSNW040I 'VVV'CONTROL BLOCK FORMATTER ERROR FLAGS

:

- X'80': FIELD EXPECTED TO BE ZERO IS NONZERO
- X'40': LAST BLOCK IN CHAIN DOES NOT POINT BACK TO PARENT BLOCK
- X'20': BLOCK NOT FOUND IN DUMP
- X'10': BLOCK LENGTH INCORRECT
- X'08': VERIFICATION CODE INCORRECT
- X'04': BLOCK CHAINED FROM THIS BLOCK NOT FOUND IN DUMP
- X'02': BLOCK CHAINED FROM THIS BLOCK HAS WRONG VERIFICATION CODE
- X'01': VALIDATION CONSTANT DOES NOT MATCH EXPECTED VALUE

Explanation: The message DSNW040I appears at the beginning of a formatted dump. It defines the

hexadecimal values associated with the 'VVV=XX' keyword. This keyword is provided on the title line of each control block selected for formatting. It indicates any unusual conditions encountered during the validation and format processing of the current control block structure.

System Action: Dump formatting continues.

System Programmer Response: All nonzero 'XX' values should be examined. If an error is indicated, the printout of the dump should be used for the problem documentation.

Problem Determination: Possible errors include:

- X'80'
- X'40'
- X'20'
- X'04'

The current state of the individual control block structures at the time of error might vary with the type of error involved. Examine control block structures with one of these 'XX' values based on the specific ABEND code.

Example: A X'04' associated with the referencing control block and the X'20' associated with the referenced control block may mean the ABEND occurred between the release of the referenced control block and re-initialization of the address within the referencing one.

DB2 validation errors include:

- X'10'
- X'08'
- X'02'
- X'01'

These values indicate that a validation error occurred while formatting the associated control block.

For example, an X'08' associated with the referenced control block indicates the storage area has been overlaid or the address in the referencing control block is incorrect. Subsequent examination of the values in this control block is not reliable.

DSNW041I THE TAB CANNOT BE ACCESSED OR IT IS INVALID

Explanation: The DB2 trace table anchor block could not be located.

System Action: Formatting of the DB2 trace table is bypassed, and formatting of any other requested dump segment continues.

System Programmer Response: If 'SUMDUMP=NO' was specified on the dump control statement, omit this operand. Otherwise, specify this operand on the dump control statement. In either case, resubmit the job.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

**DSNW049I OLDEST SLOT ADDRESS INVALID,
FORMATTING TRACE TABLE FROM
FIRST ENTRY**

Explanation: The next trace table entry location is invalid.

System Action: Dump formatting continues.

System Programmer Response: The printout of the dump should be used for the problem documentation.

Problem Determination: The Trace Anchor Block has been initialized incorrectly, or overlaid during execution.

DSNW050I *ssid*,NO SDWA/LOGREC,
ABND=*comp-reason*,U=*user-id*,
M=*module*,C=XYR00.vrm.comp-function

Explanation: This message provides the default SVC dump title (SDUMP) associated with the SYS1.DUMP data set when an SDWA was unavailable during recovery processing. The variable fields are:

ssid 4-character DB2 subsystem name

comp-reason
Abend completion code, followed by the abend reason code.

user-id Authorization-ID for the individual subsystem user.

module Functional recovery routine responsible for the dump.

vrm.comp-function
Component-ID, as follows:

vrm DB2 version, release number, and modification level.

comp-function
Component-ID function.

System Action: Dump processing continues.

System Programmer Response: Since the SDWA provides important diagnostic information to assist in problem determination, examine the recovery environment at time of error to determine why an SDWA was not provided for this abend.

In a nonrecovery environment, there may be valid reasons for the lack of an SDWA.

Problem Determination: In a recovery environment, functional recovery routines (FRRs) are guaranteed an SDWA by Recovery Termination Manager (RTM). Therefore, the recovery routine is most likely an ESTAE

recovery routine. The primary reason for an SDWA not being provided to an ESTAE routine is insufficient storage available during recovery processing. Examine the region sizes allocated to the failing function to ensure that sufficient storage is available.

In a nonrecovery environment, no SDWA is provided because only RTM can create one.

DSNW051I ERROR DURING DUMP PROCESSING

Explanation: This message is generated by the 'SDUMP dump data gathering service' recovery routine when an error is encountered during dump processing.

System Programmer Response: This error is documented in a SYS1.LOGREC record. This message can be issued because of an error in the invocation of SDUMP, or because of an error in SDUMP itself, or during control block examination and access.

System Action: Processing of the 'SUMLSTA' user storage areas is terminated, an SVC dump is requested, and control is returned to RTM.

**DSNW052I ERROR ENCOUNTERED DURING
LOAD OR VALIDATION OF A CONTROL
BLOCK STRUCTURE TABLE MODULE**

Explanation: The DB2 dump formatting facility cannot be used to format control blocks. An error occurred during the DB2 startup process while attempting to LOAD one of the Control Block Structures Table (CBDS) modules from the DB2 subsystem program library.

System Action: Subsystem startup processing continues.

Operator Response: If intervention is desired, notify the system programmer.

System Programmer Response: If intervention is desired, the DB2 subsystem can be terminated by either an MVS CANCEL command or a -STOP DB2 command. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The modules must reside in a DB2 program library named on the execution procedure used to start a DB2 subsystem address space.

The named modules prohibit the use of the DB2 dump formatting facility to format SVC dumps that occur during the current execution cycle of the DB2 subsystem. The named modules are not required for DB2 execution.

**DSNW053I VRA DIAGNOSTIC INFORMATION
REPORT**

Explanation: All DB2 diagnostic information in the Variable Recording Area (VRA) at the time of the error

is extracted and displayed in this report.

The address of the SDWA, the contents of SDWARA, and SDWARA's hexadecimal offset into SDWA are also displayed. Individual diagnostic entries are identified by a hexadecimal VRA 'key', followed by the length of the subsequent data. Data fields are displayed in hexadecimal and EBCDIC formats. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

System Action: Dump format processing continues.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNW054I NO VRA DATA RECORDED IN SDWA

Explanation: The SDWA obtained from the SYS1.DUMP data set contained no diagnostic information in the VRA.

System Action: VRA report generation is bypassed, dump format processing continues.

System Programmer Response: If an error is indicated, the printout of the dump should be used for the problem documentation. If VRA data is needed, the abending DB2 subcomponent has failed to supply it. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSNW055I FORMAT ROUTINE UNABLE TO LOCATE SDWA

Explanation: The MVS Summary Dump Data Access Service Routine (IEAVTFRD) was unable to locate the SDWA in the summary data portion of the SYS1.DUMP data set.

System Action: VRA report generation is terminated and dump format processing continues.

System Programmer Response: Take the appropriate action, as indicated in the next section. If an error is indicated, use the printout of the dump for problem documentation.

Problem Determination: The SDWA is placed in the summary data portion of the SYS1.DUMP data set by AMDPRDMP or IPCS. It indicates either CSA or Local Storage Residency.

If the SDWA is not in the dump data set, no error is indicated.

DSNW056I VRA DIAGNOSTIC REPORT COMPLETE

Explanation: The VRA Diagnostic Report is done.

System Action: Dump format processing continues.

DSNW060I BEGIN SAVE AREA TRACE

Explanation: This message identifies the start of the DB2 register Save Area Trace report which appears in the formatted section of a DB2 SVC Dump. The save areas for the current failing agent execution block (EB), and all associated Agent EBs, are traced from the point of error and displayed in order of invocation.

The format of this report is as follows:

Save Area Identification

The address and contents of each save area is displayed and identified by the invoking module.

Module-name Service-level-identifier

```
SA    .... WD1 .... HSA .... LSA ....
RET   .... EPA .... R0 ....
R1    .... R2 .... R3 ....
R4    .... R5 .... R6 ....
R7    .... R8 .... R9 ....
R10   .... R11 .... R12 ....
```

Module-name

Identifies the module responsible for obtaining the save area as indicated in the DB2 module entry point list (MEPL) at the time of the error.

If the MEPL does not contain an entry that corresponds to the module entry point address (EPA), this field is set to:

MODULE INFORMATION UNAVAILABLE

Service-level-identifier

The service level information associated with the module name is obtained from the corresponding module MEPL entry, and consists of the compilation-date and the PTF number of the latest maintenance applied.

If no maintenance has been applied for this module, this field defaults to the Function Modification Identifier (FMID).

SA

Identifies the address and contents of each word of the save area and is displayed using the format and register abbreviation conventions defined by MVS SNAP. All save area data references indicate the primary address space at the time of execution.

Execution Environment

Displays the current execution environment at the time of error for the save areas that follow. This information is repeated each time the current Agent execution EB changed during processing.

CURRENT EB=address JOBNAME=name
 HASID=hasid PASID=pasid
 EXECUTION MODE=mode

address

Address of the associated Agent EB.

name The 8-character MVS jobname associated with the home address space.

hasid Home address space identifier.

pasid Primary address space identifier.

mode Agent EB MVS execution mode:

TCB Task Control Mode

SRB Supervisory Request Mode

Register Save Area Contents for Agent EBs

The contents of the register save area chains for the current failing Agent EB, and all suspended Agent EBs at the time of error, are displayed using the save area (SA) format.

REGISTERS IN (CB-name) AT TIME OF execution-status

CB-name

Identifies the name of the control block from which the registers for the current Agent EB were obtained:

SDWA MVS System Diagnostic Workarea (Failure).

TCB MVS Task Control Block (Suspend).

STSV MVS SRB Status Save Area (Suspend).

execution-status

Indicates the current execution status of the Agent EB at the time of error:

Failure Failing execution EB.

Suspend Suspended execution EB.

Change of Primary Address Space

Since all register data references refer to the primary address space associated with the currently active execution EB, the following information is displayed each time the primary address changed during execution:

CHANGE OF ADDRESS SPACE, NEW PASID=pasid

pasid Indicates the new primary address space identifier associated with the save areas that follow.

System Action: save area trace format processing continues for the failing agent EB, and all associated agent EBs.

System Programmer Response: See the Problem Determination section.

Problem Determination: This report may be used to

determine the register contents, module invocation sequence, and execution environments leading up to the point of error.

DSNW061I SAVE AREA TRACE COMPLETE

Explanation: This message indicates that the DB2 formatted save area trace report (DSNW060I) is complete.

System Action: Dump format processing continues.

DSNW062I R6 (R6-contents) DOES NOT CONTAIN A VALID EB ADDRESS

Explanation: During dump format processing of the DB2 formatted Save Area Trace report (DSNW060I), register 6 (R6) did not contain the address of a valid Agent execution block (EB).

R6-contents:

The contents of register 6.

System Action: save area trace format processing is terminated for the current Agent EB, and all prior EBs.

System Programmer Response: The dump formatter expects the contents of register 6 to contain the address of a valid EB.

Problem Determination: Register 6 does not contain the current EB address or a prior EB address.

Refer to the abend reason and completion codes associated with the original error to determine the use of register 6 prior to the failure.

DSNW063I name (address) ASID (asid) NOT FOUND IN DUMP

Explanation: During dump formatter processing of the save area trace report (DSNW060I), a control block or save area was not found in the dump data set.

Since the dump formatter utilizes the DB2 and MVS control blocks defined under the 'name' field of this message to locate individual register save areas, subsequent save areas located via the 'named' control block or save area will not be displayed in the report.

name Identifies the name of the control block or save area that was not found in the dump data set:

SA Indicates a Save Area

ASCE DB2 Address Space Control Element

EB DB2 Execution Block

TCB MVS Task Control Block

RB MVS Request Block

XSB MVS Extended Status Block

PSA MVS Prefix Save Area

SDWA MVS System Diagnostic Work Area

STSV MVS SRB Status Save Area

STKE MVS Cross Memory Stack Element

address

The address of the 'named' control block or save area.

asid

The address space identifier associated with the control block or save area.

System Action: Register save area trace format processing for the current save area chains is terminated. Subsequent save area processing will vary depending on the specific control block or save area that was available, and the DB2 Agent execution environments at the time of the error.

System Programmer Response: Due to the execution structures and environmental restrictions of selected DB2 and MVS control structures, some control blocks and save areas associated with these execution environments will not be included in the dump data set.

Problem Determination: During MVS/RTM recovery processing, IFC Dump Services attempts to include all control blocks (both DB2 and MVS), and the pertinent DB2 save areas in the dump data set, regardless of the type of error. Control blocks and save areas associated with the following address spaces at time of error will be included in the dump data set:

- Primary, Secondary, and Home address spaces.
- DB2 System Services and Database Services address spaces.

DSNW108I UNABLE TO AUTOMATICALLY START type TRACE

Explanation: System parameters indicated that a DB2 trace should be started automatically during DB2 subsystem initialization, but the DB2 subsystem was unable to start the trace. A nonzero return code was received from the -START TRACE command.

System Action: Subsystem initialization continues.

Operator Response: Start the trace via the -START TRACE command after DB2 subsystem initialization is complete.

DSNW109I TRACE INITIALIZATION PARAMETERS UNAVAILABLE, DEFAULTS ASSUMED

Explanation: The trace function was unable to access the trace initialization parameters defined by the DSN6SYSP macro. Default values as defined by that macro are assumed for trace parameters.

System Action: Subsystem initialization continues.

Operator Response: Determine if the system parameters module DSNZPARM is missing or inaccessible. If not, determine if the CSECT DSN6SYSP is missing. Trace can be started with the -START TRACE command.

DSNW120I A SPECIFIED keyword VALUE IS INVALID FOR type TRACE

Explanation: A trace command has been entered, but a specified keyword value is not valid for the trace type requested.

System Action: Processing for the TRACE command is terminated.

Operator Response: If a -START TRACE command was entered, specify a valid destination for the trace. Otherwise, issue a -DISPLAY TRACE command to determine what traces are currently active. Refer to *DB2 Command Reference* for details about valid destinations.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSNW121I A SPECIFIED CLASS VALUE IS INVALID FOR type TRACE

Explanation: A trace command has been entered, but a specified class value is not valid for the trace type requested.

System Action: Processing for the TRACE command is terminated.

Operator Response: If a -START TRACE command was entered, specify a valid class for the trace. Otherwise, issue a -DISPLAY TRACE command to determine what options are currently active. Refer to *DB2 Command Reference* for details about valid classes.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSNW122I THE KEYWORD keyword IS NOT VALID FOR type TRACE

Explanation: A trace command has been entered, but 'keyword' is not valid for the trace type specified.

System Action: Processing for the TRACE command is terminated.

Operator Response: Either the named keyword must be omitted from the command, or a different type of trace must be specified. Refer to *DB2 Command Reference* for details about valid combinations of keywords and trace types.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSNW123I csect-name TRACE RECORDING HAS BEEN RESUMED ON dest

Explanation: 'dest' destination resumes acceptance of trace data after a failure.

System Action: Data recording is resumed.

DSNW124I *csect-name type* **TRACE TERMINATED**
RC=code RMID=nn

Explanation: During processing 'type' trace, processing abended due to an error. A trace type of blank indicates all tracing has stopped. 'RMID', displayed in decimal, identifies the resource manager. 'RC', displayed in hexadecimal, specifies the return/reason/abend code associated with the action.

Further collection of the named trace is stopped. If it is necessary to resume collection of the trace, a -START TRACE command may be issued. However if another failure is experienced, the problem should be resolved before starting the trace collection again.

System Action: Processing for the named trace type is stopped. The message is not externalized by the functional recovery routine, but is outputted whenever a IFC event is driven at a later time. A trace type of blank indicates all tracing has stopped.

User Response: Investigate the reasons for the failure.

Operator Response: If necessary to collect the named trace, issue a -START TRACE command to resume processing.

Problem Determination: Obtain a copy of the system or terminal log. If a dump was produced, have it printed. Print a copy of the contents of the SYS1.LOGREC for the time period involved. Forward these items along with a copy of the system log to the system programmer.

DSNW125I **MULTIPLE ENTRIES NOT ALLOWED FOR keyword AND keyword**

Explanation: The following matrix shows keywords which can have multiple entries and the valid combinations. If the row keyword has multiple values then the column keyword can have multiple (M) entries or a maximum of one (1).

Certain keywords are not allowed with some commands. Refer to *DB2 Command Reference* for additional information.

	Class	Dest	Plan	Auth. ID	RMID	TNO	IFCID	Loca
Class		M	M	M	M	M	M	M
Dest	M		M	M	M	M	M	M
Plan	M	M		1	M	1	M	1
Auth. ID	M	M	1		M	1	M	1
RMID	M	M	M	M		M	M	M
TNO	M	M	1	1	M		M	1
IFCID	M	M	M	M	M	M		M
Loca	M	M	1	1	M	1	M	

System Action: Processing for the TRACE command is terminated.

Operator Response: Reenter the command omitting the invalid keyword.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSNW126I *type* **TRACE NOT ALLOWED, ACTIVE TRACE TABLE FULL**

Explanation: The 'type' trace cannot be started because the active trace table is has reached the maximum number of active traces allowed.

This message is issued by the following CSECT: DSNWVCM1

System Action: Processing for the TRACE command is terminated.

Operator Response: Use the -DISPLAY TRACE command to see if an active trace could be stopped. An active trace must be stopped before any other start trace command will be processed.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSNW127I **CURRENT TRACE ACTIVITY IS-**

Explanation: This message is the title for the -DISPLAY TRACE command output. The DSNW127I message is followed by the DSNW128I message, one or more DSNW129I messages, and the DSNW147I message.

This message is issued by the following CSECT: DSNWVCM1

DSNW128I **TNO TYPE CLASS DEST QUAL**

Explanation: This message is issued before any -DISPLAY TRACE responses. The message follows message DSNW127I. The title indicates the trace number that is active, the type of trace, the class within type, and the destination specified for the active trace entries. Whether the trace is qualified is also displayed. If QUAL=YES, the trace is qualified by authorization ID, plan, RMID, or location. If QUAL=NO, the trace is not qualified. Qualification information can be requested by specifying DETAIL(2) on -DISPLAY TRACE. Refer to messages DSNW143I, DSNW144I, DSNW145I, and DSNW148I for more information about -DISPLAY TRACE. The message number is not displayed to save space on the message line.

This message is issued by the following CSECT: DSNWVCM1

DSNW129I *tno type class dest qual*

Explanation: This message is issued for -DISPLAY TRACE responses. The message indicates the trace number that is active, the type of trace, the class within type, and the destination specified for the active trace entries. Whether the trace is qualified is also displayed. If QUAL=YES, the trace is qualified by authorization ID,

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plan, RMID, or location. If QUAL=NO, the trace is not qualified. Qualification information may be requested by specifying DETAIL(2) on -DISPLAY TRACE. Refer to messages DSNW143I, DSNW144I, and DSNW145I for trace qualification information.

The message follows message number DSNW128I or DSNW129I. If more information is available than can be displayed on one line, subsequent lines of information are displayed. The message number is not displayed to save space on the message line.

DSNW130I *type* TRACE STARTED, ASSIGNED TRACE NUMBER *tno*

Explanation: 'type' trace has been started and assigned the decimal trace number 'tno'. Multiple messages are possible when the start request specifies multiple plans or multiple authorization ids.

This message is issued by the following CSECT:
DSNWVCM1

System Action: Processing for the -START TRACE command will continue.

DSNW131I STOP TRACE SUCCESSFUL FOR TRACE NUMBER(S) *tno*,...

Explanation: The trace number(s), 'tno,...', have been stopped. Up to five decimal trace numbers may be listed. If more than five traces have been stopped, then another DSNW131I message is sent.

System Action: Processing for the -STOP TRACE command will continue.

DSNW132I MODIFY TRACE SUCCESSFUL FOR TRACE NUMBER(S) *tno*,...

Explanation: The trace numbers, 'tno,...', have been modified. Up to five numbers may be listed. If more than five traces have been modified, then another DSNW131I message is sent.

System Action: Processing for the modify command will continue.

DSNW133I *csect-name* TRACE DATA LOST, *dest* NOT ACCESSIBLE RC=*code*

Explanation: The destination specified stopped accepting trace data during a trace. Some condition external to DB2 caused the data rejection. The reason for failure is defined by the return code (RC). The RC hexadecimal value can be:

- The hexadecimal return code from SMF. Refer to the appropriate MVS publication for the specific value.
- The hexadecimal return code from the GTF request.
04 GTF trace and/or USR tracing is not active.
- The hexadecimal return code from the OPn request.

- **04** No OPn buffer is assigned to an application to collect data.
- The hexadecimal return code from the OPX request.
04 No OPn buffer is assigned to an application to collect data.
- **08** The OPX trace destination buffer is full causing data to be lost.
- The hexadecimal return code from the SRV request.
10 The serviceability routine is absent.
xx The serviceability routine return code.

System Action: Trace processing continues although data will be lost.

This message will also be issued if a -START TRACE command is entered from the console or from the DB2I commands panel to an unassigned OPn or OPX destination. This is because the OP destination is not activated until an application program claims the buffer. DB2 will begin writing trace records to the buffer when an application program issues a -START TRACE to this same OP buffer destination.

Operator Response: Investigate the GTF or SMF facility to determine why data is not being accepted. You may want to issue a -START TRACE command to record the data at another destination. The -DISPLAY TRACE command shows what types of data were recorded at the specified destination. Message DSNW133I with RC=8 is due to exhaustion of storage in an OPx buffer.

Problem Determination: Obtain a copy of the system or terminal log to verify command. Refer to *MVS/ESA System Management Facilities (SMF)* for an explanation of the return code value. For instances of message DSNW133I with RC=8, consult Appendix E (Volume 2) of *DB2 Administration Guide*. The OPx buffer to which the records were to be written has been filled, and all subsequent records intended for the buffer will be lost until an IFI READA request is issued to read and clear the contents of the buffer. Suggested actions include increasing the size of the OPx buffer and/or issuing the IFI READA request more frequently so that the OPx buffer is read and cleared before buffer storage is exhausted.

DSNW135I *type* TRACE ALREADY ACTIVE, TRACE NUMBER *tno*

Explanation: 'type' trace was already active with trace number 'tno'.

System Action: Processing for the -START TRACE command will continue.

DSNW137I SPECIFIED TRACE NOT ACTIVE

Explanation: The specified trace could not be found in the active trace table.

System Action: Processing for the -STOP or -DISPLAY TRACE command will continue.

Operator Response: You may wish to issue an unqualified -DISPLAY TRACE command to determine all the active trace entries. If no traces are active then an unqualified -DISPLAY TRACE command response message is a DSNW137I message.

DSNW138I IFCID *ifcid-number* IS INVALID

Explanation: The specified IFCID number is outside the range of valid IFCID numbers or is an IFCID number which is not allowed on a trace command as specified in Part 5 (Volume 2) of *DB2 Administration Guide*.

System Action: Processing of the trace command is terminated before any trace functions are performed.

Operator Response: Investigate the reason for the problem.

Problem Determination: Refer to *DB2 Command Reference* for the range of valid IFCID numbers.

DSNW139I AUTHORIZATION FAILURE BECAUSE *authorization-privilege* PRIVILEGE REQUIRED

Explanation: The user of the command does not have the required authorization privilege to execute the command.

System Action: Command processing is stopped.

User Response: Notify the security administrator.

Operator Response: Notify the security administrator.

Problem Determination: Obtain a copy of the command input and verify the user's current authorization from the DB2 subsystem catalog.

DSNW140I ALL OPN DESTINATIONS ARE ASSIGNED

Explanation: The request could not be processed because destinations OP1 - OP8 were assigned.

System Action: Processing of the trace command is terminated before any trace functions are performed.

User Response: Investigate the reason for the failure.

Operator Response: Investigate the reason for the problem by doing a display trace to analyze the active traces.

Problem Determination: Analyze why all the OPn destinations are active after doing a display trace.

DSNW141I STORAGE NOT AVAILABLE FOR BUFFER SIZE *size* K BYTES

Explanation: The request could not be processed because storage cannot be obtained for the OPn destination storage buffer.

System Action: Processing of the trace command is terminated.

User Response: Investigate the reason for the failure.

Operator Response: Investigate the reason for the problem by doing a display trace to analyze the active traces.

Problem Determination: The problem is caused either because one or more prior start traces to an OPn destination used all the storage in the IFC OPn storage pool or because ECSA contiguous storage was not available. The IFC OPn storage pool limit is approximately 4 megabytes. When a trace is stopped the buffer storage is not free. If another start trace is issued to the same destination, the storage will be reused. If the requested storage is greater than the current unassigned buffer, it is free and a larger buffer is obtained. If the requested storage is less than the current unassigned buffer, the buffer is reused. Fragmentation can occur if either application programs or an operator specify numerous start commands for varying size buffers.

DSNW142I SPECIFIED BUFSIZE IS INCOMPATIBLE WITH ASSIGNED BUFFER

Explanation: The request could not be processed because the start trace command specified a BUFSIZE value for an OPn destination which has a buffer already assigned with a different BUFSIZE.

System Action: Processing of the trace command is terminated.

User Response: Investigate the reason for the failure.

Operator Response: Investigate the reason for the problem.

Problem Determination: The problem may be caused by one application program attempting to start a trace to a destination owned by another program. This is a site problem and can be solved by having application programs start traces to an OPX destination rather than a specific OPn destination. If only one application program is starting traces, then the program should either specify the same BUFSIZE for all requests or should not specify BUFSIZE.

DSNW143I CURRENT TRACE QUALIFICATIONS ARE -

Explanation: This message is issued before -DISPLAY TRACE responses when DETAIL(2) or DETAIL(*) is specified. Message DSNW143I is followed by the DSNW144I message, one or more DSNW145I messages, and the DSNW148I message.

DSNW144I TNO AUTHID PLAN RMID LOCATION

Explanation: This message is issued before -DISPLAY TRACE responses when DETAIL(2) is specified. The title indicates the trace number that is active, the authorization ID, the plan, the RMID, and the location specified for the active trace entries. The message follows message DSNW143I. The message number is not displayed to save space on the message line.

DSNW145I tno authid plan rmid location

Explanation: This message is issued for -DISPLAY TRACE responses when DETAIL(2) is specified. The message indicates the trace number that is active, the authorization ID, the plan, the RMID, and the location specified for the active trace entries.

The message follows messages DSNW143I or DSNW144I. If more information is available than can be displayed on one line, subsequent lines of information are displayed. The message number is not displayed to save space on the message line.

DSNW146I MULTIPLE ENTRIES NOT ALLOWED FOR keyword, keyword AND keyword

Explanation: The following matrix shows keywords that can have multiple entries and the valid combinations. If the row keyword has multiple values, the column keyword can have multiple (M) entries or a maximum of one (1).

	Class	Dest	Plan	Auth. ID	RMID	TNO	Loca
Class		M	M	M	M	M	M
Dest	M		M	M	M	M	M
Plan	M	M		1	M	1	1
Auth. ID	M	M	1		M	1	1
RMID	M	M	M	M		M	M
TNO	M	M	1	1	M		1
Loca	M	M	1	1	M	1	

Certain keywords are not allowed with some commands. Refer to *DB2 Command Reference* for additional information.

System Action: Processing for the TRACE command is terminated.

Operator Response: Omit the invalid keyword and reenter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSNW147I *END OF DISPLAY TRACE SUMMARY DATA*****

Explanation: This message is produced when all summary information for the -DISPLAY TRACE command has been written. Summary information is written when the DETAIL keyword is specified as '1', '*',

or not specified at all. Message DSNW147I follows one or more DSNW129I messages. The message number is not displayed to save space on the message line.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSNW148I *END OF DISPLAY TRACE QUALIFICATION DATA*****

Explanation: This message is produced when all qualification data for the -DISPLAY TRACE command has been written. Qualification data is written when the DETAIL keyword of the -DISPLAY TRACE command is specified as '2', or '*'. Message DSNW148I follows one or more DSNW145I messages. The message number is not displayed to save space on the message line.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSNW149I STOP TRACE COMMAND WAS UNSUCCESSFUL BECAUSE MONITOR TRACE CLASS 6 IS ACTIVE FOR QUALIFYING TRACE NUMBER(S) tno,...

Explanation: No traces were stopped by the -STOP TRACE command. Either -STOP TRACE(*) or -STOP TRACE(MON) CLASS(*) was issued when monitor trace class 6 was active. An asterisk (*) is not allowed for the TRACE and CLASS keywords when monitor trace class 6 is active. The trace numbers, 'tno,...', indicate the traces that met any other specified -STOP TRACE qualifying criteria (PLAN, AUTHID, RMID, LOCATION, TNO) and also activated monitor trace class 6, thereby preventing all qualifying traces from being stopped. This special handling of the asterisk on the -STOP TRACE command for monitor trace class 6 reduces the possibility of accidentally stopping monitor trace class 6, which enables and disables DB2 data propagation.

System Action: No traces are stopped. Processing of the -STOP TRACE command is terminated.

User Response: Reissue the -STOP TRACE command without using an asterisk for the trace type. You can use a asterisk for the CLASS keyword to stop all trace types except the monitor (MON) trace.

Operator Response: If you do not want DB2 data propagation capability, you can stop monitor trace class 6 to allow full use of the asterisk. First stop the traces

indicated by the trace numbers, 'tno,...', and then reissue the command.

If you want DB2 data propagation capability, do not stop monitor trace class 6. You must specify the trace TYPE. You can stop traces without specifying the trace CLASS as long as the trace TYPE is not (MON). If the trace TYPE is (MON), then you must specify the CLASS keyword explicitly (for example, -STOP TRACE(MON) CLASS(1,2)).

Refer to *DB2 Command Reference* for information on restrictions to the -STOP TRACE command when monitor trace class 6 is active.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

Chapter 22. DSNX... messages

DSNX100I bind-type SQL WARNING USING
authorization-id AUTHORITY
PLAN=plan-id DBRM=dbrm name
STATEMENT=statement number object
name IS NOT DEFINED

Explanation: The indicated object is not defined in the DB2 catalog.

bind-type

Type of BIND subcommand that caused the warning: BIND, REBIND

authorization-id

Authorization ID used during the BIND process: for a BIND subcommand, indicates the authorization ID of the plan owner; for a REBIND subcommand, indicates the authorization ID of the owner specified by the subcommand, or the latest owner of the plan. If this is a remote rebind, and the OWNER was not specified in the subcommand, then "REMOTE OWNER" will be output.

plan-id Name of the application plan specified in the BIND subcommand, blank if the application plan is not specified.

dbrm name

Name of the DBRM that contains the reference to the indicated object.

statement number

Statement number of the SQL statement referencing the name of the object.

object name

Name of the object that is not defined in the DB2 catalog.

System Action: A valid plan is created if no errors are detected and VALIDATE(RUN) is in effect.

System Programmer Response: Ensure that the indicated table is created before the statement is executed. Otherwise, execution of this statement results in an error.

This statement is bound dynamically on each execution of the statement. For better performance, REBIND the application program after the indicated object is created.

DSNX101I bind-type SQL WARNING USING
authorization-id AUTHORITY
PLAN=plan-id DBRM=dbrm name
STATEMENT=statement number THE
SPECIFIED AUTHORIZATION-ID DOES
NOT HAVE THE PRIVILEGE TO
PERFORM OPERATION op name ON
OBJECT object name

Explanation: The identified authorization ID does not have a privilege required for application plan execution.

bind-type

Type of BIND subcommand that caused the warning: BIND or REBIND

authorization-id

Authorization ID used during the bind process. For a BIND subcommand, it is the authorization ID of the plan owner. For a REBIND subcommand, it is the authorization ID of the owner specified by the subcommand, or the latest owner of the plan. If this is a remote operation, and the OWNER was not specified in the subcommand, then REMOTE OWNER is output.

plan-id Name of the application plan specified in the BIND subcommand. If the application plan is not specified, this field is blank.

dbrm name

Name of the DBRM that contains the unauthorized operation.

statement number

Statement number of the SQL statement containing the unauthorized operation.

System Action: A valid plan is created if no errors are detected and VALIDATE(RUN) is in effect.

System Programmer Response: You must take one of the following actions before the statement can be executed. Otherwise, the execution of the statement results in an error.

- Ensure that the appropriate authority is granted to the invoker of the latest BIND subcommand against this application plan
- Invoke the BIND subcommand again using an authorization ID with authority to perform all the operations in this application plan.

This statement is bound dynamically on each execution of the statement. For better performance, rebind the application program after the appropriate authority is granted to the invoker of the BIND subcommand against this application plan.

DSNX102I **bind-type SQL WARNING USING
authorization-id AUTHORITY
PLAN=plan-id DBRM=dbrm name
STATEMENT=statement number THE
REQUIRED INDEX HAS NOT BEEN
CREATED ON TABLE table name IN
PARTITIONED TABLESPACE table
space name**

Explanation: There was an attempt to reference the table in the table space (both specified in the message) when the required index was not yet created.

bind-type

Type of BIND subcommand that caused the warning: BIND or REBIND

authorization-id

Authorization ID used during the bind process. For a BIND subcommand, it is the authorization ID of the plan owner. For a REBIND subcommand, it is the authorization ID of the owner specified by the subcommand, or the latest owner of the plan. If this is a remote operation, and the OWNER was not specified in the subcommand, then REMOTE OWNER is output.

plan-id Name of the application plan specified in the BIND subcommand. If the application plan is not specified, this field is blank.

dbrm name

Name of the DBRM that contains the reference to the indicated table.

statement number

Statement number of the SQL statement referencing the indicated table.

System Action: A valid plan is created if no errors are detected and VALIDATE(RUN) is in effect.

System Programmer Response: Ensure that the required index on the indicated table in the partitioned table space is created before the statement is executed. Otherwise, execution of this statement results in an error. This statement is bound dynamically on each execution of the statement. For better performance, rebind the application program after the required index is created.

DSNX103I **bind-type SQL WARNING USING
authorization-id AUTHORITY
PLAN=plan-id DBRM=dbrm name
STATEMENT=statement number BIND
ISOLATION LEVEL RR CONFLICTS
WITH TABLESPACE LOCKSIZE PAGE
OR LOCKSIZE ROW**

Explanation: Because of the possible inconsistency between the isolation level of the application and the LOCKSIZE of the table space, table space locking is used to protect the integrity of the application.

bind-type

Type of BIND subcommand that caused the warning: BIND or REBIND

authorization-id

Authorization ID used during the bind process. For a BIND subcommand, it is the authorization ID of the plan owner. For a REBIND subcommand, it is the authorization ID of the owner specified by the subcommand, or the latest owner of the plan. If this is a remote operation, and the OWNER was not specified in the subcommand, then REMOTE OWNER is output.

plan-id Name of the application plan specified in the BIND subcommand. If the application plan is not specified, this field is blank.

dbrm name

Name of the DBRM that contains the reference to the indicated table.

statement number

Statement number of the SQL statement referencing the indicated table.

System Action: A valid plan is created if no errors are detected. Table space locking is used. RR isolation level is preserved.

System Programmer Response: If you do not want table space locking, use isolation level UR, CS or RS.

DSNX104I **bind-type SQL WARNING USING
authorization-id AUTHORITY
PLAN=plan-id DBRM=dbrm name
STATEMENT=statement number THE
RESULT OF DECIMAL
MULTIPLICATION MAY CAUSE
OVERFLOW**

Explanation: An arithmetic expression contains a decimal multiplication that might cause an overflow condition when the statement is executed. The problem can be corrected by restructuring the arithmetic expression so that decimal multiplication precedes decimal division or by changing the precision and scale of the operands in the arithmetic expression. Refer to Chapter 2 of *DB2 SQL Reference* for the precision and scale of the decimal multiplication and division results.

bind-type

Type of BIND subcommand that caused the warning: BIND or REBIND

authorization-id

Authorization ID used during the bind process. For a BIND subcommand, it is the authorization ID of the plan owner. For a REBIND subcommand, it is the authorization ID of the owner specified by the subcommand, or the latest owner of the plan. If this is a

remote operation, and the OWNER was not specified in the subcommand, then REMOTE OWNER is output.

plan-id Name of the application plan specified in the BIND subcommand. If the application plan is not specified, this field is blank.

dbrm name
Name of the DBRM that contains the reference to the indicated table.

statement number
Statement number of the SQL statement referencing the indicated table.

System Action: A valid plan is created if no errors are detected.

DSNX105I **bind-type SQL WARNING USING
authorization-id AUTHORITY
PLAN=plan-id DBRM=dbrm name
STATEMENT=statement number
SQLCODE=sqlcode
SQLSTATE=sqlstateTOKENS=token list**

Explanation: An SQL warning code was generated while processing an SQL statement.

bind-type
The type of subcommand that caused the warning: BIND or REBIND

authorization-id
Indicates the authorization ID used during the bind process. For a BIND subcommand, it is the authorization ID of the plan owner. For a REBIND subcommand, it is the authorization ID of the owner specified by the subcommand, or the latest owner of the plan. If this is a remote operation, and the OWNER was not specified in the subcommand, then REMOTE OWNER is output.

plan-id Name of the application plan specified in the BIND subcommand. If the application plan is not specified, this field is blank.

sqlcode
A product specific code which identifies the particular SQL warning condition. The value and semantics of the code are the same as the SQL return codes documented in Part 2, "SQL return codes," on page 11.

sqlstate
A common code which identifies the particular SQL warning condition.

dbrm name
Name of the DBRM that contains the problem.

statement number
Statement number of the SQL statement containing the problem.

token list
Sequence of one or more tokens separated by blanks. Refer to Part 2, "SQL return codes," on page 11 for an explanation of tokens.

System Action: A valid plan is created if no errors are detected.

System Programmer Response: Refer to Part 2, "SQL return codes," on page 11, for the particular SQL return code given in this message. If the reason code is negative, this statement is bound dynamically on each execution of the statement. For better performance, rebind the application program after correcting this statement or after the required object is created or altered.

DSNX106I **ATTEMPTED REBIND OF PACKAGE
pkg-id RESULTED IN A TOTAL OF
number ERRORS**

Explanation: Errors have been detected during the remote REBIND process. Only the first REBIND error will produce a specific message. Additional errors will simply be totaled, and the number will be returned to the user.

pkg-id Name of the package specified in the subcommand.

number
Total number of errors in the remote REBIND

System Action: The package was not rebound.

System Programmer Response: See previously output message to determine the initial error that caused the subcommand to be terminated unsuccessfully.

DSNX200I **bind-type SQL ERROR USING
authorization-id AUTHORITY
PLAN=plan-id DBRM=dbrm name
STATEMENT=statement number
SQLCODE=sqlcode
SQLSTATE=sqlstateTOKENS=token list
CSECT=csect name RDS
CODE=location code**

Explanation: An error has been detected while processing an SQL statement.

bind-type BIND | REBIND
indicates type of BIND subcommand that caused the error.

authorization-id
indicates the authorization ID used during the bind process. For a BIND subcommand, indicates the authorization ID of the plan owner. For a REBIND subcommand, indicates the authorization ID of the owner specified by the subcommand, or the latest owner of the plan.

plan-id Name of the application plan specified in the BIND subcommand. Blank if the application plan is not specified.

sqlcode
A product specific code which identifies the particular SQL error detected. The value and semantics of the code are the same as the SQL return codes documented in Part 2, "SQL return codes," on page 11.

sqlstate
A common code which identifies the particular SQL error detected.

dbrm name
Name of the DBRM that contains the error.

statement-number
Statement number containing the SQL error.

token list
Optional sequence of one or more tokens separated by blanks. These are the tokens that are to be substituted into the text of the error code as described at the beginning of Part 2, "SQL return codes," on page 11.

csect Name of the CSECT detecting the problem.

rds code
Unique code that identifies the location within the CSECT when the problem is detected.

System Action: No application plan is created.

System Programmer Response: Correct the SQL errors in the application program associated with the indicated DBRM. Precompile the application program, and reinvoke the BIND subcommand.

DSNX201I **bind-type SQL ERROR USING authorization-id AUTHORITY PLAN=plan-id DBRM=dbrm name STATEMENT=statement number SQL CODE=sql code TOKENS=token list; bind-type DBRM ERROR USING authorization-id AUTHORITY PLAN=plan-id DBRM dbrm name IS IN AN INCONSISTENT STATE**

Explanation: The content of a DBRM has been modified after the precompilation process.

bind-type
Type of BIND subcommand that caused the warning: BIND, REBIND

authorization-id
Authorization ID of the plan owner.

plan-id Name of the application plan specified in the BIND or REBIND subcommand (or blank if the application plan is not specified).

dbrm name
Name of the DBRM that is in error.

System Action: No application plan is created.

System Programmer Response: Precompile the application program associated with the indicated DBRM. Reinvoke the BIND subcommand.

DSNX202I **INVALID AMODE ATTRIBUTE FOUND FOR DATE OR TIME INSTALLATION REPLACEABLE EXIT ROUTINE module-name**

Explanation: During DB2 startup, the Relational Data System subcomponent loads the Date (DSNXVDTX) and Time (DSNXVTMX) exit routines. These routines must have the link-edited attributes AMODE(31) and RMODE(ANY). The module listed in the message 'module-name' did not have the correct addressing attributes. If the date and time LOCAL installation option is specified, DB2 will be unable to execute the date and time functions required by the exit routine that failed to load.

System Action: The load module is deleted. DB2 startup will continue.

Operator Response: Notify the system programmer.

System Programmer Response: When DB2 is stopped, the date and time exit routine must be link-edited again with the correct AMODE and RMODE control statements. For more information, refer to Appendix B (Volume 2) of *DB2 Administration Guide*.

DSNX203I **LOAD OF THE DATE OR TIME INSTALLATION REPLACEABLE EXIT ROUTINE module-name FAILED WITH MVS ABEND CODE = abend-code REASON CODE = reason-code DB2 STARTUP WILL CONTINUE**

Explanation: During DB2 startup, the Relational Data System subcomponent loads the date (DSNXVDTX) and time (DSNXVTMX) exit routines. During the load of EXIT ROUTINE 'module-name', MVS issued the abend code and reason code that would cause abnormal termination of the task, but the abend was suppressed. If the date and time LOCAL option is specified, DB2 will be unable to execute the date and time functions required by the exit routine that failed to load.

System Action: The load failed. DB2 startup will continue.

Operator Response: Notify the system programmer.

System Programmer Response: When DB2 is stopped, the date and time exit routine must be link-edited correctly. For more information, refer to Appendix B (Volume 2) of *DB2 Administration Guide*.

DSNX204I *csect-name* **ERROR LOADING THE DB2 CATALOG, REASON *reason*: DB2 STARTED ACCESS(MAINT)**

Explanation: The internal structure (DBD) for the catalog database (DSNDB06) was either not found or inconsistent when DB2 was started. See the appropriate reason for a more detailed description of the problem.

The *reason* is one of the following:

- 0 An error occurred reading the DBD01 table space. Check the Console for messages and SYS1.LOGREC for abends.
- 1 The expected level of the DBD for DSNDB06 is the previous release, but objects exist in the DBD for a current or later release.
- 2 The expected level of the DBD for DSNDB06 is the current release, but objects exist in the DBD for a later release.
- 3 The expected level of the DBD for DSNDB06 is a later release, but objects do not exist in the DBD for a later release.
- 4 The level of the DBD for DSNDB06 is unknown to this version of DB2.

System Action: DB2 was started ACCESS(MAINT).

System Programmer Response: Do not run any CREATES, ALTERS, DROPS, GRANTS, REVOKEs or BINDs when in this state; it might corrupt your catalog and directory. Determine the problem with the DSNDB01.DBD01 table space. An improper REPAIR or RECOVER of the table space might have been run. Fix the problem while in ACCESS(MAINT) mode and then stop and start DB2. See Section 4 (Volume 1) of Administration Guide for more information on recovering the DSNDB01.DBD01 table space.

Problem Determination: If you suspect an error in DB2 or the table space is in an inconsistent state refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

DSNX205I *csect-name* **THE DATA DEFINITION CONTROL OBJECT DEFINITIONS AND ATTRIBUTES ON MEMBER *member-name* ARE NOT THE SAME.**

Explanation: One or more data definition control object definitions and attributes on member *member-name* and on this member are not the same. The data definition control object definitions and attributes are defined in the initialization parameter module DSNZPARM.

System Action: Processing continues.

System Programmer Response: Use the same data definition control table object definitions and attributes for all members of the DB2 data sharing group. See Part 2 of *DB2 Installation Guide* for information about defining data definition control objects and attributes in DSNZPARM.

DSNX206I **LOAD OF THE ACCESS CONTROL AUTHORIZATION INSTALLATION REPLACEABLE EXIT ROUTINE *module-name* FAILED WITH MVS ABEND CODE = *abend-code* AND REASON CODE = *reason-code* DB2 STARTUP WILL CONTINUE**

Explanation: During DB2 startup, the Relational Data System subcomponent loads the Access Control Authorization (DSNX@XAC) exit routine. During the load of EXIT ROUTINE *module-name*, MVS issued the abend code and reason code that indicates abnormal termination of the task. However, the abend was suppressed. DB2 will not use the Access Control Authorization (DSNX@XAC) exit to perform authorization checking. DB2 authorization checking will be performed.

System Action: The load failed. DB2 startup will continue.

Operator Response: Notify the system programmer.

System Programmer Response: After DB2 has stopped, you must properly link-edit the Access Control Authorization exit routine. For more information, refer to Appendix B (Volume 2) of *DB2 Administration Guide*.

DSNX207I **INVALID AMODE ATTRIBUTE FOUND FOR ACCESS CONTROL AUTHORIZATION INSTALLATION REPLACEABLE EXIT ROUTINE *module-name***

Explanation: During DB2 startup, the Relational Data System subcomponent loads the Access Control Authorization (DSNX@XAC) exit routine. This routine must have the link-edited attributes AMODE(31) and RMODE(ANY). The module listed in the message *module-name* did not have the correct addressing attributes. DB2 will not use the Access Control Authorization (DSNX@XAC) exit to perform authorization checking. DB2 authorization checking will be performed.

System Action: The system deletes the load module. DB2 startup will continue.

Operator Response: Notify the system programmer.

System Programmer Response: After DB2 has stopped, you must properly link-edit the Access Control Authorization exit routine with the correct AMODE and RMODE control statements. For more information, refer to Appendix B (Volume 2) of *DB2 Administration Guide*.

DSNX208E *csect-name* **ATTEMPTING TO START DB2 WITH AN UNSUPPORTED CODE LEVEL. REASON CODE** *reason* **MISSING MAINTENANCE:** *maint* **CURRENT LEVEL** *current-code-level* **VALID LEVEL(S)** *valid-code-levels*

Explanation: The DB2 member that is starting has a code level that is not compatible with the catalog or with some other component of DB2.

reason indicates the problem:

- 1 DB2 is attempting to start with a level of code that is not valid. The missing maintenance, *maint*, is unknown.
- 2 The level of code that is required by the catalog, which is indicated by *current-code-level*, is not a valid code level. The missing maintenance, *maint*, is unknown.
- 3 A preconditioning or toleration APAR has not been applied. The required APAR or level of code is specified by *maint*.
- 4 The preconditioning or toleration maintenance is on the DB2 subsystem, but maintenance to the catalog that is specified by *maint*, has not been applied.

maint is an APAR number or a token that indicates a level of code. The value of *maint* is UNKNOWN if DB2 cannot determine the missing maintenance level.

current-code-level and *valid-code-levels* are for the use of your IBM service representative.

This message can occur in the following situations:

- The starting DB2 fell back from a later release and does not have the proper *maint* applied.
- The starting DB2 does not have the proper coexistence SPE, specified by *maint*, to start in a data sharing group, which is at a later release level.
- The starting DB2 is at a release in which coexistence with the data sharing group is not supported.

System Action: DB2 terminates with reason code 00E7009D.

System Programmer Response: Verify that:

- Coexistence is supported between the releases you are trying to run.
- The DB2 startup procedure points to the correct set of load libraries.
- The correct SPE has been applied.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 16.

DSNX209E *csect-name* **MEMBER** *member-name* **IS AT A CODE LEVEL WHICH IS NOT COMPATIBLE WITH THIS STARTING OR MIGRATING MEMBER. REQUIRED LEVEL:** *new-code-level* **KNOWN LEVELS:** *known-code-levels*

Explanation: The DB2 member that is starting will update the DB2 catalog, but the code level of that DB2 member is not compatible with the code level of the DB2 member that has already started. The DB2 subsystem at the earlier code level requires the correct SPE. The code level information in this message is for the use of your IBM service representative.

System Action: DB2 terminates with reason code 00E7009D after detecting the DB2 members that cannot coexist.

System Programmer Response: Check the DB2 Program Directory and Preventive Service Planning updates (PSP) for more information about the SPE that is needed.

Verify that:

- Coexistence is supported between the releases you are trying to run.
- The DB2 startup procedure points to the correct set of load libraries.
- The correct SPE has been applied to all active members in the group.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 16, 69.

DSNX900E *csect-name* **ILLEGAL VALUE DETECTED IN** *colname* **COLUMN OF SYSIBM.SYSPROCEDURES FOR PROCEDURE** *procname*

Explanation: The *colname* column of the SYSIBM.SYSPROCEDURES catalog table contains an unsupported value in a row associated with PROCEDURE=*procname*.

colname

The name of the column of the SYSIBM.SYSPROCEDURES table that contains the illegal value.

procname

The name of the stored procedure being processed when the illegal value was detected.

System Action: The invalid row in the SYSIBM.SYSPROCEDURES table cannot be processed.

Operator Response: Contact the system programmer.

System Programmer Response: Use ALTER PROCEDURE or ALTER FUNCTION to correct the unsupported column value in the

| SYSIBM.SYSROUTINES table.

DSNX905I *csect-name* **PROCEDURE OR FUNCTION** *name* **TERMINATED ABNORMALLY ASID=** *asid* **WLM_ENV=** *wlmenv*

Explanation: A stored procedure terminated abnormally while attempting to satisfy an SQL CALL statement for an SQL application.

name The name of the stored procedure or function that terminated abnormally.

asid The MVS ASID of the address space where the stored procedure executed.

wlmenv The name of the WLM application environment where the stored procedure executed. If it executed in the DB2-established stored procedures address space, this field will contain blanks.

System Action: The SQL CALL statement fails, and the SQL application is forced to roll back.

System Programmer Response: Correct the cause of the abnormal termination. If the correction requires the stored procedure to be linkedited again, then it might be necessary to cause the corrected MVS load module to be reloaded. Different commands must be used to cause this reloading depending on the environment in which the stored procedure was executed.

If it was run in a WLM-established stored procedures address space, issue the MVS VARY WLM,APPLENV=*name*,REFRESH command.

If it was run in the DB2-established stored procedures address space, issue the -START PROCEDURE command.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 5.

DSNX906I *csect-name* **PROCEDURE OR FUNCTION** *name* **TERMINATED ABNORMALLY. THE PROCEDURE HAS BEEN STOPPED. ASID=** *asid* **WLM_ENV=** *wlmenv*

Explanation: A stored procedure terminated abnormally while attempting to satisfy an SQL CALL statement for an SQL application.

name The name of the stored procedure or function that terminated abnormally

asid The MVS ASID of the address space where the stored procedure executed.

wlmenv The name of the WLM application environment where the stored procedure executed. If it

executed in the DB2-established stored procedures address space, this field will contain blanks.

System Action: The SQL CALL statement fails, and the SQL application is forced to roll back.

The abnormal termination count for procedure *procname* was reached. The procedure is stopped and further requests for the procedure are rejected.

System Programmer Response: Correct the cause of the abnormal termination. If the correction requires the stored procedure to be linkedited again, then it might be necessary to cause the corrected MVS load module to be reloaded. Different commands must be used to cause this reloading depending on the environment in which the stored procedure was executed.

If it was run in a WLM-established stored procedures address space, issue the MVS VARY WLM,APPLENV=*name*,REFRESH command.

If it was run in the DB2-established stored procedures address space, issue the -START PROCEDURE command.

After the appropriate command has been issued to refresh the stored procedure load module, use the -START PROCEDURE command to activate the stored procedure.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 5.

DSNX908I *csect-name* **PROCEDURE OR FUNCTION** *name* **WITH LOAD MODULE** *module* **EXCEEDED CPU RESOURCE LIMIT SSN=** *ssn* **PROC=** *jclproc* **ASID=** *asid* **WLM_ENV=** *wlmenv*

Explanation: A stored procedure or function consumed more CPU service units than allowed by the ASUTIME column of the ALTER PROCEDURES catalog table. The stored procedure might be in a loop.

name The name of the stored procedure or function being processed

module The MVS load module associated with the stored procedure

ssn The name of the DB2 subsystem that called the stored procedure.

jclproc The name of the JCL PROC used to start this stored procedures address space.

asid The MVS ASID of the address space where the stored procedure executed.

wlmenv The name of the WLM application environment where the stored procedure executed. If it executed in the DB2-established stored procedures address space, this field will contain blanks.

DSNX921I • DSNX941I

System Action: DB2 detaches the TCB associated with the stored procedure, which causes abnormal termination of the stored procedure.

Operator Response: Contact the system programmer.

System Programmer Response: If the stored procedure is looping, correct the stored procedure.

If the stored procedure is performing correctly, increase the ASUTIME value in the CREATE PROCEDURES row associated with the stored procedure.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 5.

DSNX921I *csect-name* **SOME SQL CALL STATEMENTS CANNOT BE PROCESSED, BECAUSE REQUIRED RESOURCES ARE NOT AVAILABLE**
REASON=reason TYPE=type
NAME=name

Explanation: DB2 was unable to validate the attributes of the SYSIBM.SYSROUTINES catalog table and related objects because of an unavailable resource.

reason The DB2 reason code describing the unavailable resource

type The resource type

name The name of the resource

System Action: SQL CALL statements are rejected.

System Programmer Response: Resolve the unavailable resource problem. Then use the -START PROCEDURE(*) command to cause DB2 to accept SQL CALL statements.

Operator Response: Note the *reason* code, the *type* code, and the *name*. See the Problem Determination section for an explanation of the collected data.

Problem Determination: The reason code tells why the resource is unavailable. Reason codes are described in "Part 4. Reason Codes". Use the table defined for message DSNT500I to find the type of resource identified in the message.

DSNX922I *csect-name* **BEGINNING DISCONNECTION OF STORED PROCEDURE ADDRESS SPACES**

Explanation: This message is produced during -STOP DB2 processing. It indicates that DB2 SQL processing has been quiesced, and DB2 is now beginning the termination process for the stored procedures address spaces.

DSNX923I *csect-name* **ALL STORED PROCEDURE ADDRESS SPACES ARE NOW DISCONNECTED.**

Explanation: This message is produced during -STOP DB2 processing. It indicates that all of the stored procedure address spaces are now disconnected from DB2 and the stop of DB2 will continue.

WLM-established stored procedure address spaces are terminated by WLM after the disconnection from DB2.

DSNX940I *csect-name* - **DISPLAY PROCEDURE REPORT FOLLOWS-**

Explanation: This message is the title for the report output from the DISPLAY PROCEDURE command. It precedes messages DSNX941I and DSNX942I. Message DSNX943I might also be displayed. The final message for the report is DSNX945I.

System Action: The DISPLAY PROCEDURE command processing continues.

DSNX941I **PROCEDURE MODULE STATUS ACTIVE QUEUED MAXQUE TIMEOUT WLM_ENV**

Explanation: This message displays the column headings for the list of stored procedures generated by the DISPLAY PROCEDURE command. The definitions are:

PROCEDURE

The name of the stored procedure

STATUS

The status of the stored procedure

ACTIVE

The number of DB2 agents that are currently running this stored procedure

QUEUED

The number of DB2 agents that are currently waiting for this stored procedure to be scheduled

MAXQUE

The maximum number of DB2 agents that have waited for this stored procedure to be scheduled since DB2 was started

TIMEOUT

The number of times a request for this procedure timed out while waiting to be scheduled since DB2 was started

WLM_ENV

The MVS Workload Manager environment name for this stored procedure

System Action: The DISPLAY PROCEDURE command processing continues.

DSNX942I *procedure module status active maxact
queued maxque timeout*

Explanation: This message lists the DISPLAY PROCEDURE information for a given stored procedure. The definitions of the columns are:

procedure

The name of the stored procedure.

module The MVS load module associated with the stored procedure.

If the *module* column contains blanks, the request for the *procedure* is in a state in which the MVS load module name cannot yet be determined.

status The status of the stored procedure. The status can be any of the following values:

STARTED

The stored procedure is able to accept SQL CALL requests.

STOPABN

The stored procedure was stopped because of the previous abnormal termination of the stored procedure application. SQL CALL requests for the stored procedure are rejected.

The -START PROCEDURE command can be used to place the stored procedure in STARTED status.

STOPQUE

The stored procedure was stopped. SQL CALL requests for the stored procedure are queued until the stored procedure is started or the installation-defined timeout interval expires.

The -START PROCEDURE command can be used to place the stored procedure in STARTED status.

STOPREJ

The stored procedure was placed in this status by the STOP PROCEDURE ACTION(REJECT) command. SQL CALL requests for the stored procedure are rejected.

The -START PROCEDURE command can be used to place the stored procedure in STARTED status.

active The number of DB2 agents that are currently running this stored procedure.

maxact The maximum number of DB2 agents that have run this stored procedure concurrently since DB2 was started.

queued The number of DB2 agents that are currently waiting for this stored procedure to be scheduled.

maxque

The maximum number of DB2 agents that have waited for this stored procedure to be scheduled since DB2 was started.

timeout The number of times an SQL CALL statement timed out while waiting for a stored procedure to be scheduled since DB2 was started.

An SQL CALL statement can time out for several reasons:

- The procedure can be stopped by the STOP PROCEDURE ACTION(Queue) command, causing requests for the procedure to be queued until the installation-defined time interval expires.
- There might not be enough MVS TCBs in the DB2 stored procedures address space to satisfy the volume of SQL CALL statements.
- The MVS dispatching priority of the DB2 stored procedures address space might be too low to process the stored procedure requests in a timely manner.

System Action: The DISPLAY PROCEDURE command processing continues.

DSNX943I PROCEDURES *begin - end STOP (act)*

Explanation: This message indicates a STOP PROCEDURE command was issued with an invalid procedure name, causing a range of procedure names to be stopped. This message follows the DSNX940I, DSNX941I, and any DSNX942I messages.

begin The first procedure name in the range of procedure names that are currently stopped

end The last procedure name in the range of procedure names that are currently stopped

act The action provided on the STOP PROCEDURE command

System Action: The DISPLAY PROCEDURE command processing continues.

DSNX944I *csect-name* **THE STORED PROCEDURE FUNCTION IS NOT AVAILABLE**

Explanation: This message is returned by the START, STOP, and DISPLAY PROCEDURE command when the stored procedure facility is not available. It can also be produced when an MVS START command is used to start the stored procedures address space.

The following conditions cause the stored procedure facility to be unavailable:

DSNX945I • DSNX954I

- The DB2 DSNZPARM module does not include a value for the stored procedure JCL procedure name. This prevents DB2 from starting the stored procedure function.
- DB2 was unable to start the stored procedures address space. This can be caused by a JCL error in the stored procedures JCL procedure.
- DB2 is running on MVS/XA, which does not support the stored procedure function.

System Action: If a START, STOP, or DISPLAY PROCEDURE command is in progress, the command terminates.

If an MVS START command is used to start the stored procedures address space, the stored procedures address space terminates.

DSNX945I DISPLAY PROCEDURE REPORT COMPLETE

Explanation: The output from the DISPLAY PROCEDURE command is complete. This message follows the DSNX940I, DSNX941I, and any DSNX942I messages.

System Action: The DISPLAY PROCEDURE command processing continues.

DSNX946I *csect-name* START PROCEDURE SUCCESSFUL FOR *token*

Explanation: The START PROCEDURE command completed successfully.

token The procedure name supplied on the START PROCEDURE command.

System Action: The START PROCEDURE COMMAND processing continues.

DSNX947I *csect-name* STOP PROCEDURE SUCCESSFUL FOR *token*

Explanation: The STOP PROCEDURE command completed successfully.

token The procedure name supplied on the STOP PROCEDURE command

System Action: The STOP PROCEDURE command processing continues.

DSNX950I *csect-name* PROCEDURE *procname* HAS NOT BEEN ACCESSED

Explanation: The procedure name supplied on the DISPLAY PROCEDURE command has not yet been accessed by any SQL CALL statement. The specified *procname* might not be present in the SYSIBM.SYSROUTINES catalog table.

procname

The name of the stored procedure

System Action: Processing continues for any additional procedure names supplied on the command.

DSNX951I *csect-name* A STORED PROCEDURE CANNOT ISSUE START/STOP PROCEDURE COMMANDS

Explanation: A stored procedure attempted to issue the START or STOP PROCEDURE command. This is not allowed because the START and STOP PROCEDURE commands might cause the stored procedures address space tasks to terminate.

System Action: The START or STOP PROCEDURE command is rejected.

DSNX952I *csect-name* THE DB2-Established STOREDPROCEDURE ADDRESS SPACE IS ALREADY STARTED

Explanation: DB2 supports only one DB2-established stored procedure address space.

An MVS address space attempted to connect to DB2 as a DB2-established stored procedure address space, but another DB2-established stored procedure address space is already connected to DB2.

DB2 supports multiple WLM-established stored procedure address spaces.

System Action: The attempt to connect to DB2 is rejected.

DSNX953E *csect-name* STORED PROCEDURE JOBNAME OR STARTED TASK NAME DOES NOT MATCH ZPARM

Explanation: An MVS address space attempted to identify itself to DB2 as the DB2-established stored procedure address space, but the JOBNAME or started task name of the address space did not match the stored procedure's MVS procedure name recorded in the DB2 DSNZPARM module.

System Action: The attempt to connect to DB2 is rejected.

System Programmer Response: If you want to start the DB2-established stored procedure address space from the MVS console, you must use an MVS procedure name that matches the value in the DB2 DSNZPARM module.

DSNX954I *csect-name* ATTEMPT TO START DB2-Established STORED PROCEDURE ADDRESS SPACE PROC=*jclproc* FAILED

Explanation: DB2 attempted to start the DB2-established stored procedure address space using the JCL proc name specified in the DB2 DSNZPARM module. MVS failed the request.

Possible causes for the start failing include:

- JCL proc not found
- JCL error in the proc

jclproc The name of the JCL PROC used to start the stored procedures address space.

System Action: The DB2-established stored procedures address space will not be available.

System Programmer Response: Correct the error and use the -START PROCEDURE(*) command to start the DB2-established stored procedure address space.

DSNX955I

Explanation: A blank line that appears in the DISPLAY PROCEDURE or DISPLAY FUNCTION command.

System Action: The DISPLAY command processing continues.

DSNX956I ----- SCHEMA = schema

Explanation: This message reports the schema name requested on the DISPLAY PROCEDURE or DISPLAY FUNCTION command.

schema

The schema name for the stored procedure or function.

System Action: The DISPLAY command processing continues.

DSNX957I *csect-name* INSUFFICIENT AUTHORITY FOR OBJECT *object*

Explanation: This message is issued when a START, STOP, or DISPLAY command is issued for a stored procedure or user-defined function that the user is not authorized to START, STOP, or DISPLAY.

object The stored procedure or user-defined function that failed the authorization test.

System Action: The START, STOP, or DISPLAY command continues.

DSNX958I DISPLAY TERMINATED WITH MAX LINES

Explanation: This message indicates that the -DISPLAY PROCEDURE or -DISPLAY FUNCTION SPECIFIC report was truncated. The report was generated in response to a command from a MVS console, and more than 254 response messages were generated. Only 254 response messages are returned.

System Action: Command processing completes. The truncated report is written to the MVS console.

System Programmer Response: Reissue the -DISPLAY PROCEDURE or -DISPLAY FUNCTION

SPECIFIC command, specifying a smaller number of routines. This can be done by specifying a list of routines, a schema qualifier, or a partial routine name in the DISPLAY command rather than the default (*.*). Alternatively, the command can be reissued from the DB2 Commands panel or from a batch job rather than from the MVS console.

DSNX960E *csect-name* SOME SQL CALL STATEMENTS CANNOT BE PROCESSED, BECAUSE THE Language Environment ROUTINE CEEPIPI CANNOT BE LOADED SSN=*ssn* PROC=*jclproc* ASID=*asid* WLM_ENV=*wlmenv*

Explanation: To execute an SQL CALL statement, DB2 must load the Language Environment interface module (CEEPIPI). If the CEEPIPI module is not included in an accessible data set such as STEPLIB data sets, JOBLIB data sets, or the LPA library, DB2 is unable to call Language Environment to process stored procedure or function requests.

ssn The name of the DB2 subsystem to which the stored procedures address space was connected.

ssn The name of the JCL PROC used to start this stored procedures address space.

asid The MVS ASID of the address space where the load was issued.

wlmenv The name of the WLM application environment where the load was issued. If it executed in the DB2-established stored procedures address space, this field will contain blanks.

System Action: The address space attempting to process stored procedures or functions terminates.

System Programmer Response: Change the STEPLIB DD statement in the JCL used to start the stored procedure address space, or install the CEEPIPI module in one of the libraries already accessible to the address space.

After the CEEPIPI module is accessible, use one of the following techniques to restart the failing stored procedure address space:

- If the error was in a WLM-established stored procedures address space, use the MVS VARY WLM,APPLENV=name,RESUME command.
- If the error was in the DB2-established stored procedures address space, use the -START PROCEDURE(*) command.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

DSNX961I *csect-name* **ATTEMPT TO PERFORM JNI FUNCTION *function* FAILED FOR STORED PROCEDURE *procedure-name* SSN=*ssn* PROC=*jclproc* ASID=*asid* CLASS=*class-name* METHOD=*method-name* ERROR INFO= *error-information***

Explanation: A WLM-established stored procedures address space was unable to perform a Java Native Interface (JNI) function.

function

The JNI function that failed. Possible values are:

GET_DEFAULTS

JNI_GetDefaultJavaVMInitArgs

CREATE_VM

JNI_CreateJavaVM

CALL_METHOD

CallStaticVoidMethodA

procedure-name

The name of the stored procedure that was invoked.

ssn

The name of the DB2 subsystem to which the stored procedures address space is connected.

jclproc

The name of the JCL procedure that was used to start the stored procedures address space.

asid

The MVS ASID of the address space in which *function* was invoked.

classname

The name of the class that contains the Java method to be invoked.

method

The name of the Java method to be invoked.

error-information

The error information from the toString method for the Java error.

System Action: The CALL statement fails.

System Programmer Response: Take the appropriate action, depending on the value of *function*:

GET_DEFAULTS or CREATE_VM

Ensure that the ET/390 DLLs are in the STEPLIB concatenation for the stored procedures address space, or the z/OS UNIX System Services external link is set correctly to the PDSE that contains the DLLs.

CALL_METHOD

Fix the problem that is identified in *error-information*.

DSNX962I *csect-name* **THE Language Environment CEEPIPI SERVICE RETURNED AN UNEXPECTED RETURN CODE *rc* FOR FUNCTION *func* SSN= *ssn* PROC= *jclproc* ASID= *asid* WLM_ENV= *wlmenv***

Explanation: DB2 uses the Language Environment CEEPIPI service to load and execute user-written stored procedures. The Language Environment return code *rc* was not expected for the indicated Language Environment function call.

rc The return code received from CEEPIPI.

func The function requested by DB2. Possible values are:

add_entry

Add an entry to the Language Environment PIPI table dynamically.

call_main

Run a main program stored procedure using an existing Language Environment run time environment.

call_sub

Run a sub program stored procedure using an existing Language Environment run time environment.

delete_entry

Delete an entry from the Language Environment PIPI table dynamically.

end_seq

End a sequence of calls using CEEPIPI.

identify

Identify the language the module was written in.

init_main

Create Language Environment run time environment.

init_sub_dp

Create Language Environment sub run time environment.

term

Terminate the Language Environment run time environment.

start_seq

Start a sequence of calls using CEEPIPI.

ssn The name of the DB2 subsystem to which the stored procedures address space was connected.

jclproc The name of the JCL PROC used to start this stored procedures address space.

asid The MVS ASID of the address space where the CEEPIPI error was encountered.

wlmenv The name of the WLM application environment where the CEEPIPI error was encountered. If it executed in the DB2-established stored procedures address space, this field will contain blanks.

System Action: The attempt to run a stored procedure fails. The DB2 stored procedure address space attempts any new stored procedure requests it receives.

System Programmer Response: The Language Environment return codes from CEEPIPI are documented in *Language Environment for OS/390 & VM Programming Guide*.

If the values of *func* and *rc* are 'ADD_ENTRY' and X'0000000C', the error might be caused by using a compiler that is not Language Environment enabled to create the stored procedure. DB2 stored procedures must be compiled with a compiler that supports Language Environment.

Problem Determination: Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 1.

DSNX964I *csect-name* **THE DB2-Established STORED PROCEDURES ADDRESS SPACE FOR SUBSYSTEM *subs* IS STARTED**

Explanation: The DB2-established stored procedures address space is now available to process SQL CALL statements.

subs The name of the DB2 subsystem to which the DB2-established stored procedures address space is connected.

System Action: Processing continues.

DSNX965I *csect-name* **THE DB2-Established STORED PROCEDURES ADDRESS SPACE FOR SUBSYSTEM *subs* IS STOPPING**

Explanation: The DB2-established stored procedures address space is terminating. Termination occurs when all active stored procedures in the DB2-established stored procedures address space return control to DB2.

subs The name of the DB2 subsystem to which the DB2-established stored procedures address space was connected.

System Action: DB2 continues to process any stored procedures that are currently running. If a new SQL CALL statement is received that is to be executed in the DB2-established stored procedures address space the request is queued.

DSNX966I *csect-name* **STORED PROCEDURE OR FUNCTION *sp* FAILED. Language Environment ENCLAVE RC = *erc*, FEEDBACK INFORMATION = *fi* SSN= *ssn* PROC= *jclproc* ASID= *asid* WLM_ENV= *wlmenv***

Explanation: DB2 uses the Language Environment CEEPIPI call_main or call_sub service to execute user-written stored procedures or user-defined function. The CEEPIPI interface returned information indicating a failure while executing the stored procedure.

sp The stored procedure or function name that was called using CEEPIPI.

erc The Language Environment enclave return code.

fi Contains one or two message identifiers. The message identifiers are constructed from the Language Environment condition token.

The message identifiers are constructed as follows:

- Single message: Facility_Id combined with Msg_No
- Two messages: Facility_Id combined with Class_Code and Facility_Id combined with Cause_Code

ssn The name of the DB2 subsystem that called the stored procedure or function.

jclproc The name of the JCL PROC used to start this stored procedures address space.

asid The MVS ASID of the address space where the stored procedure executed.

wlmenv The name of the WLM application environment where the stored procedure executed. If it executed in the DB2-established stored procedures address space, this field will contain blanks.

System Action: The attempt to run this stored procedure failed. The DB2 stored procedure address space attempts any new stored procedure requests it receives.

System Programmer Response: A description of the Language Environment enclave return code and the condition token are documented in *Language Environment for OS/390 & VM Programming Guide*. In many cases the feedback information contains a Language Environment message number. These are documented in z/OS Language Environment.

Problem Determination: Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 1. 4.

DSNX967I *csect-name* **ATTEMPT TO PERFORM WLM FUNCTION *func* FAILED WITH WLM RC= *rc* RSN= *rsn* SSN= *ssn* PROC= *jclproc* ASID= *asid* WLM_ENV= *wlmenv***

Explanation: A WLM-established stored procedures address space was unable to perform a WLM operation required to communicate with WLM.

func The WLM function that failed. Possible values are:

- IWMCONN
- IWMSSEL
- IWMSTBGN
- IWMSTEND

ssn The name of the DB2 subsystem to which this stored procedure address space was connected.

jclproc The name of the JCL PROC used to start this stored procedures address space.

asid The MVS ASID of the address space where this function was invoked.

wlmenv The name of the WLM application environment where this function was invoked.

System Action: The stored procedures service task that encountered the error terminates. If this is the last service task in that address space, then that address space terminates.

The WLM return codes and reason codes are documented in MVS/ESA SP 5.3 Workload Management Services. In some cases the failures are caused by the WLM application environment being incorrectly defined or in a quiesced state. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 5.

DSNX968I *csect-name* **STORED PROCEDURE ADDRESS SPACE IS UNABLE TO CONNECT TO WLM BECAUSE WLM_ENV = *wlmenv* IS STOPPED OR QUIESCED**

Explanation: A DB2 stored procedures address space could not connect to the Work Load Manager services of MVS because the WLM application environment was in a stopped or quiesced state.

wlmenv The name of the WLM application environment for which the stored procedure address space was being started.

System Action: The stored procedures address space terminates.

System Programmer Response: Correct the WLM application environment name that is being used by stored procedures address space JCL proc.

To change the status of the application environment use the MVS VARY WLM,APPLENV=*wlmenv*,RESUME command.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 5.

DSNX969I *function status active queued maxque timeout wlm_env*

Explanation: This message lists the DISPLAY SPECIFIC FUNCTION information for a given external function. The definitions of the columns are:

function

The name of the external function.

status

The status of the function. The status can be any of the following values:

STARTED

The function is able to accept SQL statement requests.

STOPABN

The function was stopped because of the previous abnormal termination of the function application. SQL statement requests for the function are rejected. The -START SPECIFIC FUNCTION command can be used to place the function in STARTED status.

STOPQUE

The function was stopped. SQL statement requests for the function are queued until the function is started or the installation-defined timeout interval expires. The -START SPECIFIC FUNCTION command can be used to place the function in STARTED status.

STOPREJ

The function was placed in this status by the STOP SPECIFIC FUNCTION ACTION(REJECT) command. SQL statement requests for the function are rejected. The -START SPECIFIC FUNCTION command can be used to place the function in STARTED status.

active

The number of DB2 agents that are currently running this function.

queued

The number of DB2 agents that are currently waiting for this function to be scheduled.

maxque

The maximum number of DB2 agents that have waited for this function to be scheduled, since the last START SPECIFIC FUNCTION command was issued for this function.

timeout

The number of times an SQL statement timed out while waiting for a function to be scheduled since the last START SPECIFIC FUNCTION command was issued for this function. An SQL statement can time out because the function can be stopped by the STOP SPECIFIC FUNCTION ACTION(Queue) command, causing requests for the function to be queued until the installation-defined time interval expires.

wlm_env

The MVS Workload Manager environment name for this function.

System Action: The DISPLAY SPECIFIC FUNCTION command processing continues.

**DSNX970I FUNCTION STATUS ACTIVE QUEUED
MAXQUE TIMEOUT WLM_ENV**

Explanation: This message displays the column headings for the list of external functions generated by the DISPLAY SPECIFIC FUNCTION command. The definitions are:

FUNCTION

The name of the external function.

STATUS

The status of the function.

ACTIVE

The number of DB2 agents that are currently running this function.

QUEUED

The number of DB2 agents that are currently waiting for this function to be scheduled.

MAXQUE

The maximum number of DB2 agents that have waited for this function to be scheduled, since the last START SPECIFIC FUNCTION command was issued for this function.

TIMEOUT

The number of times an SQL statement timed out while waiting for a function to be scheduled since the last START SPECIFIC FUNCTION command was issued for this function.

WLM_ENV

The MVS Workload Manager environment name for this function.

System Action: The DISPLAY SPECIFIC FUNCTION command processing continues.

DSNX971I FUNCTIONS begin - end STOP (act)

Explanation: This message indicates a STOP SPECIFIC FUNCTION command was issued with an asterisk (*) in the function name, causing a range of function names to be stopped. This message follows the DSNX975I, DSNX969I, and any DSNX970I messages.

begin The first function name in the range of function names that are currently stopped

end The last function name in the range of function names that are currently stopped

act The action provided on the STOP SPECIFIC FUNCTION command

System Action: The DISPLAY SPECIFIC FUNCTION command processing continues.

**DSNX972I DISPLAY FUNCTION SPECIFIC
REPORT COMPLETE**

Explanation: The output from the DISPLAY FUNCTION SPECIFIC command is complete. This message follows DSNX975I, DSNX969I, and any DSNX970I messages.

System Action: The DISPLAY FUNCTION SPECIFIC command processing continues.

**DSNX974I csect-name STOP FUNCTION SPECIFIC
SUCCESSFUL FOR token**

Explanation: The function name supplied on the STOP FUNCTION SPECIFIC command completed successfully.

token The function name supplied on the STOP FUNCTION SPECIFIC command.

System Action: The STOP FUNCTION SPECIFIC command processing continues.

**DSNX975I csect-name - DISPLAY FUNCTION
SPECIFIC REPORT FOLLOWS-**

Explanation: This message is the title for the report output from the DISPLAY FUNCTION SPECIFIC command. It precedes messages DSNX969I and DSNX970I. Message DSNX971I might also be displayed. The final message for the report is DSNX972I.

System Action: The DISPLAY FUNCTION SPECIFIC command processing continues.

DSNX977I *csect-name* **FUNCTION *funcname* HAS NOT BEEN ACCESSED**

Explanation: The function name supplied on the DISPLAY FUNCTION SPECIFIC command has not yet been accessed by any SQL statement. The specific *funcname* might not be present in the SYSIBM.SYSROUTINES catalog table.

funcname

The name of the function.

System Action: Processing continues for any additional function names supplied on the command.

DSNX978I **DISPLAY TERMINATED DUE TO INSUFFICIENT MESSAGE SPACE**

Explanation: The DISPLAY PROCEDURE command could not obtain storage for additional messages. This should only happen for a particularly long display request, such as one requesting all stored procedures that have been accessed by DB2 applications since DB2 was started.

System Action: The display is truncated.

System Programmer Response: Reissue the -DISPLAY PROCEDURE command, and specify a smaller number of procedures. This can be done by specifying a partial procedure name in the DISPLAY PROCEDURE command rather than the default (*).

DSNX980E *csect-name* **ATTEMPT TO PERFORM CALL ATTACH FUNCTION *func* FAILED WITH DB2 SUBSYSTEM *subsys*. RETURN CODE=*rc*, REASON CODE=*reason***

Explanation: The DB2 stored procedures address space was unable to perform a DB2 call attach operation required to communicate with DB2.

func The DB2 call attach function that failed.

Possible values are:

- CONNECT
- OPEN
- CLOSE
- DISCONNECT

subsys The DB2 subsystem name involved in the call attach function

rc The DB2 call attach return code

reason The DB2 reason code

System Action: The stored procedures service task that encountered the error terminates. If this is the last service task in the address space, the the DB2 stored procedures address space terminates.

System Programmer Response: Consult the DB2 *DB2 Application Programming and SQL Guide* to

determine the cause of the DB2 call attach return code and reason code.

DSNX981E *csect-name* **THE PARAMETER *parm* CONTAINS AN INVALID VALUE "*string*" PROC=*jclproc***

Explanation: The DB2 stored procedures address space received an invalid value in the JCL parameter used to start the address space.

parm The JCL parameter is specified incorrectly. Possible values are:

SUBSYS

This parameter can be invalid for the following reasons:

- The SUBSYS parameter is null.
- The SUBSYS parameter is too long.
- The SUBSYS parameter contained an invalid character.

NUMTCB

This parameter can be invalid for the following reasons:

- A comma was not present in the parameter list to separate the NUMTCB parameter from the previous parameter.
- The NUMTCB parameter is null.
- The NUMTCB parameter contained nonnumeric characters.
- The value of the NUMTCB parameter is zero.
- The value of the NUMTCB parameter is negative.
- The value of the NUMTCB parameter is greater than the maximum number of TCBs allowed in the DB2 stored procedures address space.

APPLENV

This parameter can be invalid for the following reasons:

- A comma was not present in the parameter list to separate the APPLENV parameter from the previous parameter.
- The value of the APPLENV parameter is longer than eighteen characters.

string The value provided for the parameter in error.

jclproc The name of the JCL PROC used to start this stored procedures address space.

System Action: The DB2 stored procedures address space terminates.

If MVS WLM is used to establish the stored procedure address space, WLM will retry the start of the address space two more times. If all three attempts fail, WLM will quiesce the WLM environment associated with the stored procedure address space.

System Programmer Response: Correct the JCL parameter used to invoke the DB2 stored procedure address space.

If MVS WLM is used to establish the stored procedure address space, the MVS VARY WLM,APPLENV=*wlmenv*,RESUME command might be required to resume the WLM application environment (*wlmenv*) associated with the stored procedures address space.

DSNX982I *csect-name* **ATTEMPT TO PERFORM RRS ATTACH FUNCTION *func* FAILED WITH RRS ATTACH RC= *rc* RSN= *rsn* SSN= *ssn* PROC = *jclproc* ASID= *asid* WLM_ENV= *wlmenv***

Explanation: A WLM-established stored procedures address space was unable to perform an RRS attach operation required to communicate with DB2.

func The RRS attach function that failed. Possible values are:

- SPAS_ID
- SPAS_INIT_SP
- SPAS_TERM_SP

ssn The name of the DB2 subsystem involved with the RRS attach function.

jclproc The name of the JCL PROC used to start the stored procedures address space.

asid The MVS ASID of the address space where the function was attempted.

wlmenv The name of the WLM application environment where the function was attempted.

System Action: The stored procedures service task that encountered the error terminates. If this is the last service task in that address space, then that address space terminates.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination:

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 5.

DSNX983I *csect-name* **DB2 STORED PROCEDURE SUPPORT CODE AND SUBSYSTEM CODE ARE NOT AT THE SAME LEVEL SSN= *ssn* PROC = *jclproc***

Explanation: A DB2 stored procedures address space could not connect to the DB2 subsystem. This occurred because the DB2 code in the stored procedures address space was not at the same release level as the code in the DB2 subsystem.

ssn The name of the DB2 subsystem that the stored procedure address space was attempting to connect with.

jclproc The name of the JCL PROC used to start the stored procedures address space.

System Action: The stored procedures address space terminates.

System Programmer Response: Correct the DB2 library name in the STEPLIB for the JCL proc for the stored procedures address space. Make the library name the same as the library name used for the DB2 subsystem address spaces. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 5.

DSNX984I *csect-name* **ALL FUNCTIONS STARTED FOR THIS SCHEMA.**

Explanation: All functions are started for the schema listed in the preceding DSNX956I message. This message is issued only when STOP FUNCTION SPECIFIC(*.*) was in effect.

System Action: The DISPLAY SPECIFIC FUNCTION command processing continues.

DSNX985I *csect-name* **ALL PROCEDURES STARTED FOR THIS SCHEMA.**

Explanation: All procedures are started for the schema listed in the preceding DSNX956I message. This message is issued only when a STOP PROCEDURE(*.*) was in effect.

System Action: The DISPLAY PROCEDURE command processing continues.

DSNX986I **ATTEMPT TO *func* FAILED WITH RV = *rv* RC = *rc* RSN = *rsn* SSN = *ssn* PROC = *jclproc***

Explanation: A WLM-established stored procedures address space was unable to register itself to z/OS UNIX System Services. z/OS UNIX System Services

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are not available to stored procedures running in the address space.

- func** The dub setting used by z/OS UNIX System Services BPX1SDD callable service. This can be DUBPROCESS or DUBTHREAD.
- rv** The return value given by z/OS UNIX System Services BPX1SDD callable service.
- rc** The return code given by z/OS UNIX System Services BPX1SDD callable service.
- rsn** The reason code given by z/OS UNIX System Services BPX1SDD callable service.
- ssn** The name of the DB2 subsystem to which this stored procedure address space was connected.
- proc** The name of the JCL PROC used to start this stored procedures address space.

System Action: The stored procedure address space initialization continues. z/OS UNIX System Services callable services' return values, return codes, and reason codes are documented in *z/OS UNIX System Services Messages and Codes*.

Problem Determination: Most failures are due to the user ID associated with the WLM-established stored procedures address space not being RACF defined. If you suspect an error in DB2, refer to Part 3 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

It is also possible that the number of processes was exceeded for the user ID. If the NUMBER OF TCBS is set too high during install, NUMTCB may exceed the value of the UNIX System Services MACPROCUSER setting. Refer to *z/OS UNIX System Services Messages and Codes* for more information.

DSNX987I *csect-name* **NAME** *schema-name*
INVALID, COMMAND IGNORED.

Explanation: The function name or procedure name supplied on the DISPLAY, START, or STOP, FUNCTION SPECIFIC or PROCEDURE command uses an invalid wildcard schema name. The qualified routine name must specify a full schema name, *"**"*, *"*.**"*, or blanks.

schema-name

The schema name containing invalid characters.

System Action: The START, STOP, or DISPLAY command is rejected.

DSNX988I *csect-name* **ALL OTHER FUNCTIONS IN OTHER SCHEMAS STOPPED** *act*

Explanation: A STOP FUNCTION SPECIFIC(*.*) is currently in effect. Any functions not listed in the preceding DSNX969, DSNX971, and DSNX976 messages are stopped *act*.

act The action provided on the STOP FUNCTION command

System Action: The DISPLAY SPECIFIC FUNCTION command processing continues.

DSNX989I *csect-name* **ALL OTHER PROCEDURES IN OTHER SCHEMAS STOPPED** *act*

Explanation: A STOP PROCEDURE(*.*) is currently in effect. Any functions not listed in the preceding DSNX942, DSNX943, and DSNX950 messages are stopped *act*.

act The action provided on the STOP PROCEDURE command

System Action: The DISPLAY PROCEDURE command processing continues.

DSNX990E *csect-name* **IMS ODBA INITIALIZATION FAILED BECAUSE THE CALLABLE INTERFACE CANNOT BE LOADED**

Explanation: The IMS ODBA callable interface module cannot be loaded. No IMS database DL/I calls will be supported from stored procedures. Ensure the load module named AERTDLI is located within the partitioned dataset specified in the stored procedure address space startup procedure's DFSRESLB dd card statement.

System Action: The stored procedure address space initialization continues.

DSNX991I *csect-name* **IMS ODBA INITIALIZATION COMPLETED**

Explanation: The initialization of the IMS ODBA callable interface has completed. Stored procedure applications may use DL/I calls to access IMS databases.

System Action: The stored procedure address space initialization continues.

DSNX992E *csect-name* **IMS ODBA INITIALIZATION FAILURE, AIB RC =** *rc*

Explanation: The initialization of the IMS ODBA callable interface has failed. Stored procedure applications cannot use DL/I calls to access IMS databases.

rc The AIB return code provided by IMS for the CIMS INIT call. Refer to the section on DL/I Return and Reason Codes in *IMS Application Programming: Database Manager* for more information regarding the failure.

System Action: The stored procedure address space initialization continues.

DSNX993I *csest-name* **CALL TO REXX
PROCEDURE *execname* FAILED,
FUNCTION = *function* RC = *rc* RSN = *rsn***

Explanation: An attempt to establish an environment to run a REXX stored procedure has failed. Use the following pieces of information to identify the error:

execname

The name of the REXX exec.

function

The TSO or REXX function call that failed. It can be one of three values: IKJTSOEV, IRXINIT, or IRXEXEC. For more information regarding the IKJTSOEV function, refer to *z/OS TSO/E Programming Services*. For information regarding IRXINIT and IRXEXEC, refer to *z/OS TSO/E REXX Reference*.

rc

The return code for the specific function, provided by TSO or REXX. For return code explanations, refer to *z/OS TSO/E Programming Services* and *z/OS TSO/E REXX Reference*.

reason

The reason code for the specified function, provided by TSO or REXX. For reason code explanations, refer to *z/OS TSO/E Programming Services* and *z/OS TSO/E REXX Reference*.

System Action: The stored procedure address space initialization continues.

Problem Determination: View the file associated with the SYSTSPRT DD card in the Stored Procedure Address Space start-up procedure. This file contains diagnostic messages issued by TSO regarding the failing function. Refer to *z/OS TSO/E Messages* for any messages found in the SYSTSPRT.

DSNX994I **SCOPE(GROUP) COMMAND CANNOT
BE PROCESSED DUE TO COMMAND
ALREADY IN PROGRESS**

Explanation: A -DISPLAY PROCEDURE, -START PROCEDURE, -STOP PROCEDURE, -DISPLAY FUNCTION, -START FUNCTION, or -STOP FUNCTION command with SCOPE(GROUP) was issued at the same time that another data sharing member was processing a SCOPE(GROUP) command. DB2 could not obtain the lock necessary to serialize these commands.

Severity: 8 (error)

System Action: The command is not processed on any members of the data sharing group.

User Response: Enter the command again.

Chapter 23. DSNY... messages

DSNY001I SUBSYSTEM STARTING

Explanation: The -START DB2 command is accepted. This message is issued to the MVS console that issued the -START command. The DSN9022I message is sent when the DB2 subsystem startup process has completed. Refer to the DSN9022I message for additional information.

System Action: DB2 startup processing begins.

DSNY002I SUBSYSTEM STOPPING

Explanation: The -STOP DB2 command is accepted. The DSN9022I message is issued when the DB2 subsystem shutdown process has completed. The message is issued either to the origin of the -STOP DB2 command (for MVS MCS console) or to the MVS console from which the -START DB2 command was received. Refer to the DSN9022I message for additional information.

System Action: DB2 subsystem shutdown is initiated.

DSNY003I SUBSYSTEM IS ALREADY ACTIVE

Explanation: The -START DB2 command has not been accepted, because the DB2 subsystem is active. The DSN9023I message is issued after this message. Refer to the DSN9023I message for additional information.

DSNY004I SUBSYSTEM IS ALREADY STOPPING

Explanation: The -STOP DB2 command has not been accepted either because the DB2 subsystem shutdown is in progress for the specified option (QUIESCE or FORCE), or because the QUIESCE option was specified after a FORCE option had been previously accepted. The DSN9023I message is issued after this message. Refer to the DSN9023I message for additional information.

System Action: DB2 subsystem shutdown is continued.

DSNY005I SUBSYSTEM STARTUP TERMINATED, INVALID START COMMAND

Explanation: The DB2 subsystem can be started only by a -START DB2 command.

System Action: DB2 subsystem startup is terminated.

Operator Response: Start the DB2 subsystem via the -START DB2 command, and reenter the rejected command.

DSNY006I *csect-name* INVALID AMODE OR RMODE ATTRIBUTE FOUND FOR LOAD MODULE *module name*

Explanation: The Initialization Procedures subcomponent detected that a module had an invalid AMODE or RMODE attribute when it was loaded. In the error message, 'module name' is the name of the load module with an invalid addressing or residency mode.

System Action: DB2 subsystem startup is terminated.

Operator Response: Notify the system programmer of the failure.

System Programmer Response: Verify that all installation and maintenance activities against DB2 were executed using SMP, that the JCLIN for SMP includes the correct AMODE and RMODE control statements, and that the Linkage Editor provided with the Data Facility Product (DFP) was invoked by SMP for the link edits. Correct the procedure or JCL that caused the error and rerun the necessary SMP jobs.

Problem Determination: A DB2 dump was requested to an MVS SYS1.DUMP data set. The MVS service aid AMBLIST provides Linkage Editor module attributes in the summary section of the LISTLOAD function output.

DSNY007I LOAD MODULE DSNHDECP DOES NOT HAVE RMODE(24) ATTRIBUTE

Explanation: The named load module was not link-edited with the required RMODE(24) attribute.

System Action: DB2 startup is abended with reason code 00E80160.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that all installation and maintenance activities against DSNHDECP were executed using SMP. JCLIN for SMP must have included the correct AMODE and RMODE control statements. The Linkage Editor, provided with the Data Facility Product (DFP), was invoked by SMP for the link-edits. Correct the procedure or JCL that caused the error and rerun the necessary SMP jobs.

Problem Determination: The MVS service aid AMBLIST provides Linkage Editor module attributes in the summary section of the LISTLOAD function output.

DSNY008I SUBSYSTEM SHUTDOWN REQUEST NOT ACCEPTED

Explanation: The -STOP DB2 command has not been accepted because a subsystem startup has not completed to the point where shutdown can occur. The DSN9023I message is issued after this message. Refer to the DSN9023I message for additional information.

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System Action: DB2 startup continues and the -STOP DB2 command is ignored.

User Response: Reissue the -STOP DB2 command after subsystem startup has completed.

DSNY009I SUBSYSTEM STARTING IN LIGHT MODE, NORMAL TERMINATION TO FOLLOW RELEASE OF RETAINED LOCKS

Explanation: DB2 issues this message during DB2 startup if it is restarted in light mode.

System Action: DB2 startup continues normally. The DB2 member will automatically shut itself at the end of restart after the retained locks are removed if there are no indoubt units of recovery. If indoubt units of recovery exist, then the DB2 member remains up and running in light mode so that the indoubts can be resolved.

DSNY010I LOAD MODULE *module name* IS NOT AT THE CORRECT RELEASE/VERSION LEVEL

Explanation: The named load module is not at the correct release/version level for the version of DB2 that was being started.

System Action: DB2 startup is abended with reason code 00E80161.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that the correct load libraries are being used. Also verify that the application of maintenance did not result in modules being link edited into the wrong load libraries.

DSNY011I *csect-name* Z/ARCHITECTURE WITH 64-BIT ADDRESSING IS REQUIRED FOR THIS RELEASE OF DB2

Explanation: An attempt was made to start DB2 on a processor that either does not support z/Architecture, or is not enabled for 64-bit addressing.

System Action: DB2 startup abends with reason code 00E8005A.

System Programmer Response: Ensure that the processor on which DB2 is started supports z/Architecture and is enabled for 64-bit addressing.

DSNY012I *csect-name* THIS RELEASE OF DB2 REQUIRES Z/OS V1R3 OR ABOVE

Explanation: An attempt was made to start DB2 on an operating system image that was not z/OS V1R3 or above.

System Action: DB2 startup abends with reason code 00E80058.

System Programmer Response: Ensure that z/OS

V1R3 or above is enabled before starting DB2.

DSNY014I *n csect* DB2 HAS BEEN STARTED WITH ACCESS(MAINT)

Explanation: This DB2 has been started with option ACCESS(MAINT).

Severity: 0 (informational)

System Action: None.

Programmer Response: None.

DSNY015I LIGHT(YES) ON START DB2 COMMAND WAS IGNORED, SYSTEM IS NOT ENABLED FOR DATA SHARING

Explanation: DB2 issues this message during startup if DB2 is started with the LIGHT(YES) keyword and the system is not enabled for data sharing.

System Action: DB2 startup continues normally, ignoring the LIGHT(YES) keyword.

DSNY020I *csect-name* MEASURED USAGE DATA IS NOT BEING RECORDED FOR *subsystem/address-space*

Explanation: For measured usage data to be recorded, SMF type 89 records must be collected. Two PTFs must be applied: one to the early code and one to the base. Until both are active, measured usage data cannot be recorded.

System Action: Processing continues, but measured usage for either the DB2 subsystem or the specified DB2 address space is not recorded.

Programmer Response: If measured usage data is needed, be sure that SMF type 89 records are collected and that both PTFs are applied to the running system. An IPL is required for the change to early code.

If the records are being recorded, the PTFs are applied, and an address-space is in the message, then the return code for the MVS service is located in ASCEMULC for that address space.

Chapter 24. DSNZ... messages

DSNZ002I *src* DSNZINIT SUBSYSTEM *ssnm*
SYSTEM PARAMETERS LOAD
MODULE NAME IS *dsnzparm-name*

Explanation: DB2 subsystem '*ssnm*' is being started with the '*dsnzparm-name*' DSNZPARAM load module. This message is written to the MVS console which entered the -START DB2 command. The message will also appear in the JES SYSLOG and on the JES job log of *ssnm*MSTR. The message contains the name of the DSNZPARAM load module entered by the operator or the default name (DSNZPARAM) if no name was entered.

System Action: DB2 startup processing continues.

DSNZ003I *csect-name* DSNZINIT CSECT
parm-csect NOT FOUND IN SYSTEM
PARAMETERS.

Explanation: The named *parm-csect* was not found in the system parameters (ZPARM) specified when starting DB2. This CSECT is required to start DB2. The name of the system parameters load module that is missing this CSECT is identified in previously issued message DSNZ002I.

This error can occur if the system parameters load module specified is for a different release of DB2.

System Action: DB2 subsystem startup processing stops.

Operator Response: Verify that the correct system parameters name was specified. If the correct name was specified, notify the system programmer.

System Programmer Response: Verify that:

- The system parameters load module is for the release of DB2 being started.
- The correct load libraries are being used to load the system parameters load module.

If these are correct, then reassemble and relink-edit your system parameters load module.

DSNZ004I *csect-name* DSNZINIT INCORRECT
LEVEL *wrong-level* FOUND IN
parm-csect SYSTEM PARAMETERS.
LEVEL *correct-level* IS REQUIRED.

Explanation: The system parameters load module CSECT *parm-csect* contains an incorrect level identifier. The CSECT contains a level identifier of *wrong-level* and the DB2 that is starting requires a level identifier of *correct-level*.

This error can occur if the system parameters load module specified is for a different release of DB2. This error can also occur if the system parameters load module is missing some maintenance. In this case the

parm-csect is down level and must be reassembled.

System Action: DB2 subsystem startup processing stops.

Operator Response: Verify that the correct system parameters name was specified. If the correct name was specified, then notify the system programmer.

System Programmer Response: Verify that:

- The system parameters load module is for the release of DB2 being started.
- The correct load libraries are being used to load the system parameters load module.

If these are correct, then reassemble and relink-edit your system parameters load module.

DSNZ006I *src* SUBSYS *ssnm* SYSTEM
PARAMETERS LOAD MODULE NAME
module-name IS BEING LOADED

Explanation: DB2 subsystem *ssnm* is loading parameters from *module-name* subsystem parameters load module.

System Action: DB2 online refresh of subsystem parameters continues.

DSNZ007I *src* SUBSYS *ssnm* SYSTEM
PARAMETERS LOAD MODULE NAME
module-name LOAD COMPLETE

Explanation: DB2 subsystem *ssnm* has loaded subsystem parameters load module *module-name*, and has notified all resource managers.

DSNZ008I *src* CSECT *parm-csect* NOT FOUND IN
SYSTEM PARAMETERS

Explanation: The named *parm-csect* was not found in the subsystem parameters load module specified in the -SET SYSPARM command. Message DSNZ007I, which was issued prior to this message, identifies the name of the subsystem parameters load module that is missing this CSECT.

System Action: DB2 online refresh of subsystem parameters terminates.

System Programmer Response: Verify that:

- The system parameters load module matches the release level of the DB2 that was started.
- The correct load libraries are being used to load the system parameters load module.

If these are correct, then reassemble and relink-edit your system parameters load module.

DSNZ009I *src* **INCORRECT LEVEL** *wrong-level*
FOUND IN *parm-csect* **SYSTEM**
PARAMETERS. LEVEL *correct-level* **IS**
REQUIRED.

Explanation: This message, issued during -SET SYSPARM command processing, indicates the specified subsystem parameters load module CSECT *parm-csect* contains an incorrect level identifier. The CSECT contains a level identifier of *wrong-level*.

The active DB2 subsystem requires a level identifier of *correct-level*. This error can occur if the specified subsystem parameters load module does not match the release level of the DB2 system. This error can also occur if the subsystem parameters load module requires additional maintenance. In the latter case, the *parm-csect* is down-level and requires reassembly.

System Action: DB2 online refresh of subsystem parameters terminates.

DSNZ010I *src* **SUBSYS** *ssnm* **SYSTEM**
PARAMETERS LOAD MODULE NAME
module-name **NOT FOUND, BLDL**
R15=rc, R0=rsn

Explanation: During -SET SYSPARM command processing on subsystem *ssnm*, the specified subsystem parameters load module *module-name* could not be located during MVS BLDL processing. The BLDL issued a return code of *rc* and a reason code of *rsn*.

System Action: DB2 online refresh of subsystem parameters terminates.

System Programmer Response: Verify that the named load module exists, and that DB2 can access it.

DSNZ011I *src* **SUBSYS** *ssnm* **SYSTEM**
PARAMETERS SET TO STARTUP

Explanation: DB2 issues this message when the STARTUP parameter is specified on the -SET SYSPARM command. The message indicates that the subsystem parameters specified at DB2 startup are now in effect.

System Action: Processing continues.

DSNZ012I *src* **SUBSYS** *ssnm* **SYSTEM**
PARAMETERS LOAD MODULE NAME
module-name **NOT LOADED, LOAD**
R15=rc, R1=rsn

Explanation: DB2 issues this message during -SET SYSPARM command processing on subsystem *ssnm*, where the load of *module-name* failed. *rc* and *rsn* are the return and reason codes from the MVS LOAD.

System Action: Online refresh of subsystem parameters terminates.

DSNZ013I *src* **SUBSYS** *ssnm* **SYSPARM**
COMMAND REJECTED, COMMAND
ALREADY IN PROGRESS

Explanation: The current -SET SYSPARM command is rejected due to processing of a previous -SET SYSPARM command.

System Action: Online refresh of subsystem parameters for this command is rejected.

User Response: Retry the command after the previous -SET SYSPARM command completes.

DSNZ014I *src* **PARAMETER** *parm-name* **IN CSECT**
load-csect-name **CANNOT BE**
CHANGED ONLINE. PARAMETER
CHANGE IGNORED.

Explanation: Subsystem parameter *parm-name* in *load-csect-name* is different from its start-up value, but *parm-name* cannot be changed online.

System Action: DB2 uses the start-up value for parameter *parm-name*.

DSNZ015I *src* **YOU MUST HAVE INSTALL**
SYSADM AUTHORITY TO CHANGE
PARAMETER *parm-name* **ONLINE.**
PARAMETER CHANGE IS IGNORED.

Explanation: Install SYSADM authority is needed to change the *parm-name* parameter using the SET SYSPARM command. The previous value for *parm-name* is used.

System Action: The value for the *parm-name* parameter is not changed in the newly-loaded module.

Chapter 25. DSN1... messages

The messages in this section apply to DSN1LOGP, DSN1COPY, DSN1COMP, DSN1PRNT, and DSN1CHKR.

The value shown for 'severity' is the value returned as the job-stepcondition code from the job step in which the message is issued. If additional messages having higher severity values are issued during the same job step, the higher value is reflected as the job-step condition code.

Severity values have the following meanings:

- 0** An informational message. No error occurred.
- 4** A warning message. A condition was detected of which the user should be aware. The user might need to take further action.
- 8** An error message. An error situation was detected and processing could not continue.
- 12** A severe error message. A severe error situation was detected and processing could not continue.

DSN1110E LIMIT OF 50 STATEMENTS EXCEEDED

Explanation: DSN1LOGP allows a total of 50 statements for a given job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job using no more than 50 statements.

DSN1111E LIMIT OF 80 TOKENS EXCEEDED

Explanation: DSN1LOGP allows a total of 80 keywords and corresponding value specifications. A keyword with its value is considered two tokens.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job using no more than 80 keywords.

DSN1112E TOKEN xx..xx EXCEEDS 64 HEXADECIMAL CHARACTERS

Explanation: The SYSIN input contains the character string 'xx..xx'. This string is invalid.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job with the specified token being no more than 64 hexadecimal characters in length.

DSN1113E VALUE FOR KEYWORD xxxxxxxx INVALID

Explanation: The SYSIN input contains the keyword 'xxxxxxx'. The value specified for that keyword is not of the form '(value)'.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job with the correct form of the keyword. The problem might be that the closing parenthesis ')' is missing or that an extra blank exists in the value.

DSN1114E RBASTART MULTIPLY DEFINED

Explanation: The RBASTART parameter can be specified only once for a given job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job using a single RBASTART value.

DSN1115E *csect-name* KEYWORD *keyword* ALLOWS ONLY *number* HEX CHARACTERS

Explanation: The value given for *keyword* is too long.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing no more than the maximum number of characters allowed for the keyword.

DSN1116E *csect-name keyword* IS USED MORE THAN ONCE.

Explanation: The *keyword* can be used only once in a single job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a single keyword.

DSN1117E *csect-name keyword* SPECIFIED WITH NO VALUE OR INCORRECT VALUE

Explanation: The keyword must be followed by a correct value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a correct value for the keyword.

DSN1118E RBAEND > 12 HEX CHARACTERS

Explanation: The maximum size of a log RBA in DB2 is 6 bytes (hence, 12 characters).

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing an RBAEND value that is no more than 12 hexadecimal characters.

DSN1119E DBID MULTIPLY DEFINED

Explanation: The DBID keyword can be specified only once for a given job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a single DBID value.

DSN1120E DBID SPECIFIED WITH NO VALUE

Explanation: The DBID keyword specifies a hexadecimal database identifier and must be followed by a value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a DBID (value).

DSN1121E DBID > 4 HEX CHARACTERS

Explanation: A DBID is 2 bytes in length (hence, 4 characters maximum).

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a DBID which is no longer than 4 hexadecimal characters.

DSN1122E OBID MULTIPLY DEFINED

Explanation: The OBID keyword can be specified only once for a given job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a single OBID value.

DSN1123E OBID SPECIFIED WITH NO VALUE

Explanation: The OBID keyword specifies a hexadecimal database object identifier. OBID must be followed by a value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing an OBID (value).

DSN1124E OBID > 4 HEX CHARACTERS

Explanation: An OBID is 2 bytes in length (hence, 4 characters maximum).

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing an OBID which is no longer than 4 hexadecimal characters.

DSN1125E PAGE SPECIFIED WITH NO VALUE

Explanation: The PAGE keyword specifies a hexadecimal page number. PAGE must be followed by a value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a PAGE (value).

DSN1126E PAGE > 6 HEX CHARACTERS

Explanation: A page number is 3 bytes in length (hence, 6 characters maximum).

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a PAGE value which is no longer than 6 hexadecimal characters.

DSN1127E KEYWORD xxxxxxxx UNKNOWN

Explanation: DSN1LOGP does not recognize the keyword 'xxxxxxx'.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Check to make sure all keywords are valid and resubmit the job.

DSN1128E *csect-name keyword* KEYWORD SPECIFIED WITHOUT *keyword*

Explanation: The identified keywords are associated with each other. You cannot specify one keyword without the other keyword.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing the corresponding correct keywords.

DSN1129E PAGE WITHOUT DBID OBID

Explanation: DB2 pages exist in objects called 'page sets'. When you specify a page, you must also identify the page set by using the appropriate DBID and OBID specifications.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing the associated DBID (value) and OBID (value) that correspond to the given page.

DSN1130E OBID WITHOUT DBID

Explanation: When you specify an OBID, you must also identify the database that contains that OBID by specifying the DBID of the database.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing both an OBID (value) and a DBID (value).

DSN1131E OFFSET/VALUE PAIR NUMBER xx CONTAINS INVALID HEX DATA

Explanation: A hexadecimal specification is required. The value for offset/value pair number 'xx' contains an invalid hexadecimal character.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a correct hexadecimal value specification.

DSN1132E URID SPECIFIED WITH NO VALUE

Explanation: The URID keyword specifies the hexadecimal unit of recovery identifier. URID must be followed by a value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing an associated value for the URID parameter.

DSN1133E URID > 12 HEX CHARACTERS

Explanation: The maximum size of a URID in DB2 is 6 bytes (hence, 12 characters).

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a valid URID value of no more than 12 hexadecimal characters.

DSN1134E *csect-name* LIMIT OF *number keywords* IS EXCEEDED

Explanation: The *keyword* was specified more than the maximum number of times allowed in any given job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job specifying this keyword no more than the maximum number of times.

DSN1135E SUMMARY MULTIPLY DEFINED

Explanation: The SUMMARY option can be specified only once.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job using a single SUMMARY specification.

DSN1136E SUMMARY SPECIFIED WITH NO VALUE OR INCORRECT VALUE

Explanation: The permitted values for summary are YES, NO, ONLY, or FILTER.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a valid parameter for the SUMMARY option.

DSN1137I *csect-name* **FIRST PAGE SET
CONTROL RECORD AFTER RESTART
LOG** *seq nnnnnnnnnnnn*

Explanation: This message shows the log sequence number of a record that serves as an implicit indication that a restart occurred just prior to this point.

seq RBA or LRSN

nnnnnnnnnnnn

The log sequence number

Severity: 0 (informational)

System Action: Processing continues.

DSN1138E *csect-name keyword* **AND** *keyword*
CANNOT BOTH BE SPECIFIED

Explanation: You cannot specify both keywords in one job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job specifying only one of the keywords.

DSN1139E **RID SPECIFIED WITH NO VALUE**

Explanation: The RID keyword specifies a 4-byte hexadecimal number, with the first 3 bytes representing the page number and the last byte representing the record ID. A value must be associated with the RID.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a RID (value).

DSN1140E **RID > 8 HEX CHARACTERS**

Explanation: The maximum size of a RID in DB2 is 4 bytes (hence, 8 characters).

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing a valid RID value of no more than 8 hexadecimal characters.

DSN1141E **RID WITHOUT DBID OBID**

Explanation: The DBID and OBID associated with the given RID value must be specified.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing the associated DBID (value) and OBID (value) that correspond to the given RID value.

DSN1142E **DATAONLY MULTIPLY DEFINED**

Explanation: The DATAONLY option limits the log records extracted in the detail report to those that represent data modifications. This option can be specified only once.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job specifying DATAONLY once.

DSN1143E **DATAONLY SPECIFIED WITH NO
VALUE OR INCORRECT VALUE**

Explanation: The DATAONLY keyword must be specified with either a YES or NO value. Any other value (including no value) is incorrect.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job specifying the correct value for the DATAONLY parameter.

DSN1144E **RBASTART SPECIFIED WITH NO
VALUE**

Explanation: The RBASTART keyword specifies the hexadecimal log RBA from which to begin extraction. RBASTART must be followed by a value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job providing an associated value for the RBASTART parameter.

DSN1146E **CURRENT END CHECKPOINT
TIMESTAMP** **TIMESTAMP=yy.ddd**
hh.mm.ss LOG RBA=xxxxxx IS OUT
OF SEQUENCE. THE GREATEST
TIMESTAMP SEEN SO FAR IS
TIMESTAMP=yy.ddd hh.mm.ss LOG
RBA=xxxxxx **Multiple processors may**
be writing to the same log.

Explanation: This message indicates that the current log record has a timestamp that is less than the previous timestamp processed. This may be a potential problem.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Examine current log to determine whether multiple processors are writing to the same log. (Data may be being overwritten.) This may lead to data inconsistencies.

DSN1147E SYSCOPY MULTIPLY DEFINED

Explanation: The SYSCOPY option can only be specified once.

Severity: 8

System Action: Processing is terminated.

User Response: Resubmit the job using a single SYSCOPY specification.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSN1148E SYSCOPY SPECIFIED WITH NO VALUE OR INCORRECT VALUE

Explanation: The SYSCOPY keyword must be specified with either a YES or NO value. Any other value (including no value) is incorrect.

This message is issued by the following CSECT:
DSN1LPAR

Severity: 8

System Action: Processing is terminated.

User Response: Resubmit the job specifying the correct value for the SYSCOPY parameter.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

DSN1150I SUMMARY OF COMPLETED EVENTS

Explanation: This message heads the summary of completed units of recovery (URs) and checkpoints. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Severity: 0 (informational)

System Action: Processing continues.

DSN1151I *csect-name mbn* UR CONNID=*cc*
CORRID=*bb* AUTHID=*aa* PLAN=*pp*
START DATE=*yy.ddd* TIME=*hh:mm:ss*
DISP=*xx* INFO=*ii* STARTRBA=*ss*
ENDRBA=*ee* STARTLRSN=*rr*
ENDLRSN=*nn* NID=*nid* LUWID=*luwid*
COORDINATOR=*name* PARTICIPANTS:
(*list of participants*)

Explanation: This message describes a unit of recovery (UR) that terminated for data sharing member *mbn*.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

cc Connection ID (for example, BATCH).

bb Correlation ID (for example, JOB xxx).

aa Authorization ID executing the UR.

pp Plan name used by the UR.

DSN1LOGP returns a plan name of SYSTEM in this field if the UR was generated as a result of a system event (such as the first update of a table space). In such a case, no bound plan exists for the UR described.

yy.ddd Starting date of the UR.

hh:mm:ss
Starting time of the UR.

xx Disposition of the UR. Values reported are:
Inflight
In-abort
In-commit
Indoubt
Committed
Aborted
P-Abort

If the UR was bypassed by a conditional restart, DSN1LOGP indicates this by preceding the disposition value with the word BYPASSED.

ii The status of the data is one of the following:
COMPLETE, indicating that all page sets modified by this UR were identified.
PARTIAL, indicating that the list of page sets modified by this UR is incomplete.
DSN1LOGP indicates PARTIAL status if all records associated with a UR are not available, and no checkpoint is found before the UR's completion.

ss RBA of the first log record associated with the UR (that is, the URID).

ee RBA of the last log record associated with the UR.

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rr LRSN of the first log record associated with the UR.

nn LRSN of the last log record associated with the UR

nid The identifier assigned by IMS or CICS for this UR. This is blank if the UR is a result of TSO, batch, or remote access.

luwid The logical unit of work identifier associated with the UR

name The name of the remote coordinator associated with the UR. This is blank if the coordinator is the local DB2, IMS, or CICS.

list of participants

The names of all remote participants that might have updated data in this UR.

This message is followed by messages that identify the page sets modified by the UR. For each page set, a single message is printed in the following form:

DATABASE=*dbid*=*dbname*
PAGE SET=*obid*=*psname*

Where:

dbid Internal database identifier

dbname Database name corresponding to the *dbid*

obid Internal page set identifier

psname Page set name corresponding to the OBID

The *dbname* and *psname* fields might be absent if a full checkpoint was unavailable to DSN1LOGP or was caused by overlapped processing of DB2 during a checkpoint.

If no data was modified by the UR (for example, certain URs might be created merely to track information that is valid only for the life of the application), the phrase NO DATA MODIFIED is printed.

Severity: 0 (informational)

System Action: Processing continues.

DSN1152I *csect-name mbn UR CONNID=**
CORRID=** AUTHID=** PLAN=** START
DATE=** TIME=** DISP=xx INFO=ii
STARTRBA=ss STARTLRSN=**
ENDRBA=ee ENDLRSN=nnNID=nid
LUWID=luwid COORDINATOR=name
PARTICIPANTS: (list of participants)*

Explanation: This message describes a unit of recovery (UR) for data sharing member *mbn*. The UR identifying information (**) described in message DSN1151I is unavailable.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

The remaining information (DISP, INFO, START, END, NID, LUWID, COORDINATOR and PARTICIPANTS) appears just as it does in message DSN1151I. If the UR did not complete, the END RBA or LRSN values are not printed.

This message is followed by messages that identify the page sets modified by the UR. Details of that are in the explanation of message DSN1151I.

Severity: 0 (informational)

System Action: Processing continues.

DSN1153I *csect-name CHECKPOINT mbn
STARTRBA=ss ENDRBA=ee
STARTLRSN=rr ENDLRSN=nn
DATE=yy.ddd TIME=hh:mm:ss*

Explanation: This message describes a complete checkpoint on the log starting and ending RBA or LRSN for data sharing member *mbn*. If the information is available, DSN1LOGP also returns the date and time that the checkpoint started.

When this message follows message DSN1157I RESTART SUMMARY, it identifies the checkpoint that would be used at restart. If no checkpoint is available, message DSN1158I is printed instead.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

Severity: 0 (informational)

System Action: Processing continues.

DSN1154I *csect-name RESTART mbn AT RBA=xx
LRSN=ll DATE=yy.ddd TIME=hh:mm:ss*

Explanation: A normal restart occurred at log RBA *xx* or LRSN *ll*.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

DSN1LOGP also returns the date and time of that restart.

Severity: 0 (informational)

System Action: Processing continues.

DSN1155I *csect-name* **CONDITIONAL RESTART**
mbn **AT RBA=xx LRSN=ll DATE=yy.ddd**
TIME=hh:mm:ss STARTRBA=ss
ENDRBA=ee FORWARD=ff
BACKOUT=bb

Explanation: A conditional restart occurred at the log RBA *xx* and LRSN *ll*. DSN1LOGP also returns the date and time of that restart.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

ss Relative byte address of the beginning of the restart

ee Relative byte address of the conclusion of the restart

ff Whether forward log recovery phase was to be bypassed (YES | NO)

bb Whether backward log recovery phase was to be bypassed (YES | NO)

Severity: 0 (informational)

System Action: Processing continues.

DSN1156I ALL URS COMPLETE

Explanation: There are no URS outstanding for restart.

Severity: 0 (informational)

System Action: Processing continues.

DSN1157I RESTART SUMMARY

Explanation: This message heads the summary of the description of work to be performed at restart. Restart information that follows is based on the scope of the log scanned. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Severity: 0 (informational)

System Action: Processing continues.

**DSN1158I NO CHECKPOINT AVAILABLE —
RESTART SUMMARY INCOMPLETE**

Explanation: No checkpoint is available within the scope of the log scanned. The information following this message includes:

- URS that have not completed
- Page sets modified by these URS
- Page sets with writes pending.

The information cannot be considered complete.

Severity: 0 (informational)

System Action: Processing continues.

DSN1159I NO DATABASE WRITES PENDING

Explanation: All database I/O has been completed. If the Log Extractor can find no complete checkpoint, it will return an additional message '(BASED ON INCOMPLETE LOG INFORMATION)', to warn you that there may in fact be pending database writes.

Severity: 0 (informational)

System Action: Processing continues.

DSN1160I DATABASE WRITES PENDING:

Explanation: Database writes are pending at restart. Each page set with outstanding I/O is identified by a separate message following this one:

DATABASE=*dbid*=*dbname*
PAGESET=*obid*=*psname* START=*ss*

Where:

dbid Internal database identifier

dbname Database name corresponding to the *dbid*

obid Internal page set identifier

psname Page set name corresponding to the *obid*

Note: *dbname* and *psname* may be absent if a full checkpoint was unavailable to the Log Extractor or was caused by overlapped processing of DB2 during a checkpoint.

ss Log RBA of the earliest log record required to complete outstanding writes for this page set. If the value of *ss* is returned as **, this information is unavailable. Such will be the case if the Log Extractor is unable to locate a full checkpoint. In this event, DSN1LOGP will return an additional message (LIST MAY BE INCOMPLETE), to alert you to the possibility that the list of page sets with outstanding writes may be incomplete.

Severity: 0 (informational)

System Action: Processing continues.

DSN1162I *csect-name mbn* **UR CONNID=cc**
CORRID=bb AUTHID=aa PLAN=pp
START DATE=yy.ddd TIME=hh:mm:ss
DISP=xx INFO=ii STARTRBA=ss
STARTLRSN=ll NID=*nid*LUWID=*luwid*
COORDINATOR=*name* PARTICIPANTS:
(list of participants)

Explanation: This message describes a unit of recovery (UR) that has not terminated. The information returned is the same as for message DSN1151I, except

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that the END field is not included in the message because the UR did not terminate.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

Severity: 0 (informational)

System Action: Processing continues.

DSN1163E NO CHECKPOINT AVAILABLE DUE TO LOG ERROR -- RESTART SUMMARY INCOMPLETE

Explanation: A log error was encountered. DSN1LOGP marked any checkpoints encountered before the log error as invalid. There were no complete checkpoints following the log error in the specified log range. The information following this message includes:

- URs that have not completed
- Page set modified by these URs
- Page sets with writes pending.

This information cannot be considered complete.

Severity: 0 (informational)

System Action: Processing continues.

DSN1164E INVALID xxxx FOUND AT RBA = yyyyyyyyyyyy

Explanation: While processing the SUMMARY option, an invalid checkpoint record (either URE or RURE identified by 'xxxx') was encountered in the log.

Severity: 0 (informational)

System Action: Processing continues.

User Response: If the checkpoint record identified in the message is used to restart DB2, the restart will fail because DB2 will not be able to process the unit of recovery presented by the invalid URE or RURE. DB2 must be restarted from a previous checkpoint to correctly process all units of recovery. The print log map (DSNJU004) utility can be used to list the checkpoint records in the BSDS, and the CHPTRBA parameter of the change log inventory (DSNJU003) utility can be used to direct the DB2 restart to use a particular checkpoint.

DSN1170E SUBTYPE MULTIPLY DEFINED

Explanation: The SUBTYPE parameter can be specified only once for any given job.

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a single SUBTYPE value and resubmit the job.

DSN1171E SUBTYPE SPECIFIED WITH NO VALUE

Explanation: The SUBTYPE parameter specifies a decimal set subtype. The SUBTYPE must be followed by a value, i.e. SUBTYPE(value).

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a SUBTYPE value and resubmit the job.

DSN1172E SUBTYPE > 2 DECIMAL CHARACTERS

Explanation: The maximum size of a SUBTYPE is 2 decimal characters.

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a SUBTYPE value with a maximum of 2 decimal characters and resubmit the job.

DSN1173E csect-name INVALID VALUE value SPECIFIED FOR KEYWORD keyword

Explanation: The specified keyword value is not valid.

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Refer to *DB2 Utility Guide and Reference* for a list of valid values. Provide a valid value and resubmit the job.

DSN1174E OFFSET SPECIFIED WITH NO SUBTYPE

Explanation: The given OFFSET has no corresponding SUBTYPE.

This message is issued by the following CSECT:
DSN1LPAR

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a valid SUBTYPE for the given OFFSET and resubmit the job.

DSN1175E OFFSET SPECIFIED WITH NO VALUE OR INCORRECT VALUE

Explanation: The given OFFSET has no corresponding VALUE given or an incorrect VALUE is specified, such as specifying another keyword in place of a value.

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a valid VALUE for the given OFFSET and resubmit the job.

DSN1176E OFFSET > 8 HEX CHARACTERS

Explanation: The maximum size for an OFFSET is 4 bytes (hence, 8 characters).

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide an OFFSET with a maximum of 8 characters and resubmit the job.

DSN1177E LIMIT OF 10 OFFSET, VALUE PAIRS EXCEEDED

Explanation: A maximum of 10 OFFSET, VALUE pairs can be specified for a given log record SUBTYPE.

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a maximum of 10 OFFSET, VALUE pairs for a given SUBTYPE and resubmit the job.

DSN1178E OFFSET SPECIFIED WITH NO CORRESPONDING VALUE

Explanation: The given OFFSET has no corresponding VALUE keyword specified.

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide an associated VALUE (value) for the given OFFSET and resubmit the job.

DSN1179E VALUE SPECIFIED WITH NO CORRESPONDING OFFSET OR SUBTYPE PARAMETER

Explanation: The given VALUE has either no corresponding OFFSET or SUBTYPE parameter specified.

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide an associated OFFSET or SUBTYPE for the given VALUE and resubmit the job.

DSN1180E VALUE SPECIFIED WITH NO VALUE OR INCORRECT VALUE

Explanation: The given VALUE has no corresponding value given, an incorrect value is specified, such as specifying a keyword in place of a value, or an uneven number of characters were specified.

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a valid value for the given VALUE and resubmit the job.

DSN1181E VALUE SPECIFIED WITH NO CORRESPONDING OFFSET

Explanation: The given VALUE has no corresponding OFFSET specified.

Severity: 12 (severe error)

System Action: Processing terminates.

User Response: Provide a valid OFFSET for the given VALUE and resubmit the job.

DSN1182E LIMIT OF 10 LUWIDs EXCEEDED

Explanation: A maximum of 10 LUWID keywords can be specified in any given job.

Severity: 8 (error)

System Action: DSN1LOGP processing is terminated.

User Response: Resubmit the job providing no more than 10 LUWID keywords.

DSN1183E LUWID SPECIFIED WITH INCORRECT VALUE OR NO VALUE

Explanation: The LUWID consists of an LU network name, an LUW instance number, and a commit sequence number. The LU network name consists of a 1 to 8 character network ID, a period, and a 1 to 8 character network LU name. The LUW instance number consists of a period followed by 12 hexadecimal characters. The LUW sequence number consists of a period followed by 4 hexadecimal characters.

Severity: 8 (error)

System Action: DSN1LOGP processing is terminated.

User Response: Resubmit the job providing a valid LUWID value.

DSN1184E FILTER KEYWORD MULTIPLY DEFINED

Explanation: The FILTER keyword was specified more than once.

Severity: 8 (error)

System Action: DSN1LOGP processing is terminated.

User Response: Correct the input to provide only one FILTER keyword and resubmit the job.

DSN1185E FILTER KEYWORD SPECIFIED WITHOUT SUMMARY KEYWORD

Explanation: The FILTER keyword was specified without an associated SUMMARY keyword.

Severity: 8 (error)

System Action: DSN1LOGP processing is terminated.

User Response: Correct the input to include the SUMMARY keyword and resubmit the job.

**DSN1191I DETAIL REPORT OF PAGE
 REGRESSION ERRORS**

Explanation: This message is always generated as the title for a detailed report of page regression errors. It precedes message DSN1192I.

**DSN1192I DBID OBID PAGE# CURRENT MEMBER
 PREV-LEVEL PREV-UPDATE DATE
 TIME**

Explanation: This message contains the title of the detail page regression information.

**DSN1193I dbid obid page# current member
 prev-level prev_update date time**

Explanation: This message contains the following information about a page regression error:

dbid Hexadecimal DBID of the database that has page regression.

obid Hexadecimal OBID of the pageset that has page regression.

page# Hexadecimal pageset page number that has been regressed.

CURRENT

RBA/LRSN of the current log record at which the page regression has been detected. In non-datasharing, the RBA is printed and in datasharing environment, the LRSN value is printed.

member

The two-byte member ID of the DB2 member that wrote the log record. In non- datasharing, this value is zero.

prev-level

Previous level of the page from the current log record.

prev-update

The previous update to the page found during log processing.

date

The date portion of the current log record LRSN value, in printable format.

time

The time portion of the current log record LRSN value, in printable format.

**DSN1194I SUMMARY REPORT OF PAGE
 REGRESSION ERRORS**

Explanation: This message is always generated as the title for a summary report of page regression errors. It precedes message DSN1195I.

**DSN1195I DATABASE SPACENAM DBID OBID
 #PG-REGRESSIONS**

Explanation: This message contains the summary title of the page regression information.

**DSN1196I database spacenam dbid obid
 #pg-regressions**

Explanation: This message contains the following summary information about page regression errors:

database

The name of the database that has page regression. An asterisk would be printed if the name is unknown.

spacenam

The name of the pageset that has page regression. An asterisk would be printed if the pageset name is unknown.

dbid

Hexadecimal DBID of the pageset that has page regression.

obid

Hexadecimal OBID of the database that has page regression.

pg-regressions

The total number of regressed pages for the pageset.

**DSN1197I TOTAL NUMBER OF PAGES CHECKED
 FOR REGRESSION = page-count**

Explanation: This message lists the total number of unique pages that DSN1LOGP has checked for page regression errors. *page-count* is displayed in decimal format.

DSN1198I ***NO REGRESSED PAGES
 DETECTED*******

Explanation: No page regression errors were detected within the RBA/LRSN range that was specified.

**DSN1210E DSNJSLR ERROR RETCODE=xxxxxxx
 REASON CODE =yyyyyyyy**

Explanation: The stand-alone log read function detected an error. The return code (RETCODE) is explained in Appendix C (Volume 2) of *DB2 Administration Guide*. The reason code is explained in Part 4, "Section 4. DB2 Codes," on page 773.

Severity: 8 (error)

System Action: Processing is terminated.

DSN1211E DSNJSLR RETURNED BAD LOG RBA

Explanation: One of the three problems listed below exists.

1. The recovery log data set is damaged.
2. You identified a data set that isn't a recovery log data set.
3. The stand-alone log read service has a problem.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Determine if the problem is your error by dumping the data set and determining if it is a log data set.

Problem Determination: A common error is to specify the first data set on an archive tape (the 'Bxxxxxx' data set) as a log data set; it is actually a BSDS.

- An error prevents DSN1LOGP from continuing, so no log records have yet been processed. If this is the case, an error message should precede this message.
- You specified the active log data sets or archive log data sets out of RBA sequence.
- You specified a STARTRBA that is greater than any RBA in the active and/or archive data sets available.

**DSN1212I csect-name FIRST LOG seq
ENCOUNTERED nnnnnnnnnnnn**

Explanation: This message identifies the sequence number of the first log record that was read.

seq RBA or LRSN

Severity: 0 (informational)

System Action: Processing continues.

**DSN1216E csect-name DSNJSLR ERROR
RETCODE = xxxxxxxx REASON CODE =
yyyyyyyyy seq = nnnnnnnnnnnn**

Explanation: The stand-alone log read function returned an error indicating that either the log has an error in one of the control intervals (CI) or a data set containing the requested sequence number cannot be located. The sequence number shown in the message indicates where the error was detected.

seq RBA or LRSN

The sequence number points:

- To the start of the CI, if there is a problem with the log control interval definition (LCID), or with any of the general control information within a CI.
- To the log record in the CI, if there is a problem with a log record header (LRH).

If this is the first log record read during this execution of DSN1LOGP, and if there is a problem with the LCID, the sequence number is all zeros.

**DSN1213I csect-name LAST LOG seq
ENCOUNTERED nnnnnnnnnnnn**

Explanation: This message identifies the sequence number of the last log record that was read.

seq RBA or LRSN

Severity: 0 (informational)

System Action: Processing continues.

Before returning any records, DSN1LOGP checks the control information (LCID) at the end of a CI, and analyzes the LRH to ensure that all records are properly chained together within the CI. If an error is detected while performing this process, DSN1LOGP issues this message before dumping the entire CI. It will not format individual records within the CI, but will, if possible, continue processing by reading the next CI.

Severity: 0 (informational)

System Action: Processing continues.

Problem Determination: The reason code identifies the nature of the error and is explained in Part 4, "Section 4. DB2 Codes," on page 773. The return code is explained in Appendix C (Volume 2) of *DB2 Administration Guide*.

**DSN1214I NUMBER OF LOG RECORDS READ
nnnnnnnnnnnnnnnnnn**

Explanation: This identifies the number (in decimal) of 'logical' log records read during DSN1LOGP processing.

Severity: 0 (informational)

System Action: Processing continues.

**DSN1217E csect-name mbn DSNJSLR WARNING
RETCODE = xxxxxxxx REASON CODE =
yyyyyyyyy CURRENT LOG seq =
nnnnnnnnnnnn**

Explanation: A gap in the log sequence range was encountered for member *mba*. The CURRENT LOG sequence number shows the log record for the member

DSN1215I NO LOG RECORDS WERE READ

Explanation: DSN1LOGP read no log records.

Severity: 0 (informational)

System Action: Processing continues. Possible explanations:

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following the gap, and is formatted following this message.

Previous log record can be found with same member ID.

mbn MEMBER=*membername*, where *membername* is the member of a data sharing group. This is printed only for a data sharing record.

seq RBA or LRSN

Severity: 0 (informational)

System Action: Processing continues.

Problem Determination: The reason code identifies the nature of the error and is explained in Part 4, "Section 4. DB2 Codes," on page 773. The return code is explained in Appendix C (Volume 2) of *DB2 Administration Guide*.

DSN1218I NUMBER OF LOG ERROR MESSAGES nnnnnnnnnnnnnnnnnn

Explanation: DSN1LOGP distinguishes three classes of errors:

1. Code problems existing in the DB2 or system code used for DSN1LOGP. In the event of a SYSABEND dump, a user abend code of U0153 will be issued, and DSN1LOGP will be terminated.
2. Incorrect invocation of DSN1LOGP caused, perhaps, by your having used an incorrect keyword or missed a DD statement. Under these circumstances, DSN1LOGP will issue appropriate error messages, and the program will be terminated.
3. Failure by a given log CI under the scrutiny of DSN1LOGP. Such scrutiny is performed before any of the records within the CI are processed. Failure is an indication of logical damage, and error messages are issued by the Log Extractor. The CI or failing log record is printed, and DSN1LOGP continues to the next CI or log record.

The count 'nnnnnnnnnnnnnnnn' provided summarizes the number (in decimal) of errors DSN1LOGP detected while accessing the log.

Severity: 0 (informational)

System Action: Processing continues.

DSN1219E SYSSUMRY DD STATEMENT MISSING

Explanation: You requested the SUMMARY option, but failed to include the SYSSUMRY DD statement in your JCL invocation.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Resubmit the job with a SYSSUMRY DD statement included in the JCL invocation.

DSN1220E ARCHIVE LOG TRUNCATED AT xxxxxxx - INVALID LOG RECORDS WERE READ

Explanation: At a restart of DB2, an archive log was truncated. This archive log data set could not be physically altered to reflect this truncation, and invalid log records therefore still exist. DSN1LOGP has already reported this information in the summary report, and cannot retract it. Nor can it disregard the invalid log information already read in order adequately to summarize what has occurred. Therefore, all information up to this point in the log will be summarized, and a new summary report initiated. Consequently, the same UR may be reported twice with different dispositions and different page sets modified. To avoid this condition, use the BSDS DD statement instead of the ARCHIVE DD statement.

Severity: 0 (informational)

System Action: Processing continues.

DSN1221E DSNJSLR ERROR RETCODE=xxxxxxx REASON CODE=yyyyyyy VSAM RETURN CODE=aaaa ERROR CODE=bbbb

Explanation: The stand-alone log read function resulted in a VSAM error. The DSNJSLR return code 'xxxxxxx', and reason code 'yyyyyyy', included in the message are documented in Appendixes (Volume 2) of *DB2 Administration Guide*.

The VSAM return code (aaaa), and error code (bbbb), identify the nature of the VSAM error. Refer to the appropriate VSAM publication for an explanation of these codes.

Severity: 0 (informational)

System Action: Processing continues.

DSN1222E DSNJSLR ERROR RETCODE=xxxxxxx REASON CODE=yyyyyyy DYNAMIC ALLOCATION INFORMATION CODE=aaaa ERROR CODE=bbbb

Explanation: An error occurred while dynamically allocating a log data set. DSNJSLR return code 'xxxxxxx', and reason code 'yyyyyyy', included in the message, are documented in Appendixes (Volume 2) of *DB2 Administration Guide*. Information code 'aaaa' and error code 'bbbb' were returned by the dynamic allocation SVC and identify the nature of the error. Refer to the appropriate MVS publication for an explanation of these codes.

Severity: 12 (severe error)

System Action: Processing terminates.

DSN1223E DSNJSLR ERROR RETCODE=xxxxxxx
REASON CODE=yyyyyyy RDJFCB
RETURN CODE=aaaa

Explanation: An error occurred while trying to read the job file control block. The DSNJSLR return code 'xxxxxxx', and reason code 'yyyyyyy', included in the message are documented in Appendixes (Volume 2) of *DB2 Administration Guide*.

The RDJFCB return code (aaaa), identifies the nature of the error. Refer to the appropriate MVS publication for an explanation of these codes.

Severity: 0 (informational)

System Action: Processing continues.

DSN1300E *csect-name* RBA RANGE CANNOT BE
USED TO PRINT LOG RECORDS FROM
MULTIPLE DB2 SYSTEMS

Explanation: RBASTART and RBAEND cannot be used to define the range when selecting log records from multiple DB2 systems. LRSNSTART and LRSNEND should be used instead.

System Action: Processing terminates.

User Response: Resubmit the job with either RBA values only or LRSN values only.

DSN1303E *csect-name* INCOMPATIBLE DD
STATEMENTS WERE SPECIFIED FOR
LOG PROCESSING

Explanation: Either MxxACTn or MxxARCHV was erroneously specified in conjunction with MxxBSDS to locate the log data sets of a member of a DB2 data sharing group for a DSN1LOGP job.

System Action: Processing terminates.

User Response: Correct the DD statement and resubmit the job.

DSN1309E *csect-name* SPECIFIED END RANGE IS
LESS THAN START RANGE

Explanation: The value specified for ENDLRSN or ENDRBA is less than the value of STARTLRSN or STARTRBA for a DSN1LOGP job.

System Action: Processing terminates.

User Response: Resubmit the job with correct start and end values.

DSN1700E VALUE FOR KEYWORD xxxxxxxx IS
INVALID

Explanation: The SDMPIN input contains the 'xxxxxxx'. The value specified for that keyword is invalid.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide a correct keyword value and resubmit the job.

DSN1701E START TRACE MISSING

Explanation: The START TRACE command is required. The first keyword record of the SDMPIN input does not contain a START TRACE command.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Resubmit the job with START TRACE as the first keyword record in the SDMPIN input.

DSN1702E KEYWORD xxxxxxxx MULTIPLY
DEFINED

Explanation: Keyword 'xxxxxxx' was specified multiple times in the SDMPIN input. All keywords are allowed only once.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Specify the keyword only once. Resubmit the job.

DSN1703E KEYWORD xxxxxxxx UNKNOWN

Explanation: DSN1SDMP does not recognize the keyword 'xxxxxxx'.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Make sure that all keywords are valid and then resubmit the job.

DSN1704E UNABLE TO OBTAIN RETURN-AREA
STORAGE

Explanation: An error resulted when DSN1SDMP attempted to obtain storage for an instrumentation facility interface (IFI) return area.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: When you resubmit the job either:

- Specify a larger region size in the job control language.
- Reduce the value of BUFSIZE on START TRACE.

DSN1705E SYNTAX ERROR, LINE = II, COLUMN = cc

Explanation: A syntax error was encountered in the SDMPIN input. The location of the error is given by:

II The line number within the input stream that is in error.

cc The column number.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Correct the syntax error and then resubmit the error.

DSN1706E INVALID ABEND CODE SPECIFIED

Explanation: An invalid abend code was specified on the ACTION keyword.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Allowable abend codes are 00E60100 through 00E60199. Specify an allowable abend code and then resubmit the job.

DSN1707E LIMIT OF 50 STATEMENTS EXCEEDED

Explanation: DSN1SDMP allows a maximum of 50 statements for a given job.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Use no more than 50 statements when you resubmit the job.

DSN1708E TOO MANY SELECT CRITERIA VALUES

Explanation: DSN1SDMP allows a maximum of eight SELECT criteria values.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Use no more than eight SELECT criteria values and then resubmit the job.

DSN1709E INPUT/OUTPUT ERROR, DDNAME=xxxxxxx

Explanation: An error resulted when DSN1SDMP attempted to do I/O. The ddname of the data set to which I/O failed is 'xxxxxxx'

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Ensure that the 'xxxxxxx' DD

statement in the job control language is valid and resubmit the job.

DSN1710E UNABLE TO OPEN SDMPTRAC

Explanation: An error resulted when DSN1SDMP attempted to open the SDMPTRAC data set.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Ensure that the SDMPTRAC DD statement in the job control language is valid and resubmit the job.

DSN1711E START TRACE ERROR, REASON=xxxxxxx

Explanation: DB2 did not process the submitted START TRACE command. The reason code 'xxxxxxx' is returned from the instrumentation facility interface (IFI).

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Check the return area that follows message DSN1712I. Possible problems are:

- The syntax of the START TRACE command is invalid. Correct the command and resubmit the job. Do not include the subsystem recognition character before the command text.
- The user does not have authority to issue trace commands. Obtain trace authority and resubmit the job.

DSN1712I START TRACE RETURN-AREA FOLLOWS:

Explanation: DSN1SDMP issued the START TRACE command and the return area resulting from the instrumentation facility interface (IFI) COMMAND call follows this message. The return area contains DB2 command response messages.

Severity: 0 (informational)

System Action: Processing continues.

DSN1713I READA ERROR, REASON=xxxxxxx

Explanation: An error resulted when DSN1SDMP issued a instrumentation facility interface (IFI) READA call in an attempt to obtain DB2 trace records. Reason code 'xxxxxxx' is the IFI reason code returned in IFCARC2.

Severity: 0 (informational)

System Action: DSN1SDMP writes any records that were returned and processing continues.

User Response: Possible reason codes are:

00E60802

The DSN1SDMP return area was not large enough to hold the returned trace records. This condition should not occur because the DSN1SDMP return area is the same size as the requested OPn monitor buffer.

00E60803

No trace data was available when the READA request was made. This condition occurs when the trace started by DSN1SDMP is stopped from the operator console or by another application program.

DSN1714I TRACE RECORDS WERE LOST

Explanation: DB2 trace records were lost and are not contained in the SDMPTRAC data set.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Possible reasons for lost trace records are:

- The OP buffer is not large enough. Specify a larger BUFSIZE on the START TRACE command and then resubmit the job.
- The trace data is too voluminous and buffer is overflowing before the data can be read. Specify a more granular selectivity on the START TRACE command and then resubmit the job.

DSN1715E UNABLE TO OBTAIN WORK SPACE

Explanation: An error resulted when DSN1SDMP attempted to obtain work area storage.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Specify a larger region size in the job control language and then resubmit the job.

DSN1716E UNABLE TO OPEN SDMPIN

Explanation: An error resulted when DSN1SDMP attempted to open the SDMPIN data set.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Ensure that the SDMPIN DD statement in the job control language is valid and resubmit the job.

DSN1717I STOP TRACE RETURN-AREA FOLLOWS:

Explanation: DSN1SDMP issued the STOP TRACE command and the return area resulting from the instrumentation facility interface (IFI) COMMAND call follows this message. The return area contains DB2

command response messages.

Severity: 0 (informational)

System Action: Processing continues.

DSN1718E STOP TRACE ERROR, REASON=xxxxxxx

Explanation: DSN1SDMP attempted to submit a DB2 STOP TRACE command at the end of its processing; however, the command failed. The reason code returned from the instrumentation facility interface (IFI) is 'xxxxxxx'.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Check the return area that follows message DSN1717I. One possible problem is:

- The trace has already been stopped from the operator's console or by another application program.

DSN1719I ACTIONS ARE COMPLETE

Explanation: All requested IFC selective dump actions finished. All trace records have been written to the specified destination(s). If an abend action was requested, all abends have taken place.

Severity: 0 (informational)

System Action: DSN1SDMP stops the trace that it started and completes processing.

DSN1720I READA ERROR, REASON=xxxxxxx

Explanation: An error resulted when DSN1SDMP issued an instrumentation facility interface (IFI) READA call in an attempt to obtain DB2 trace records. Reason code 'xxxxxxx' is the IFI reason code returned in IFCARC2.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: One possible reason code is:

00E60824

The user does not have correct monitor authority. Obtain the correct monitor authority (MONITOR1 or MONITOR2) and resubmit the job.

DSN1800I START OF DSN1CHKR FOR JOB job-name step-name

Explanation: This message indicates that DSN1CHKR started processing.

Severity: 0 (informational)

System Action: DSN1CHKR starts processing.

DSN1801I ANCHOR POINT mm IN ERROR IN PAGE nnnnnn

Explanation: This message indicates that anchor point 'mm' is in error in page 'nnnnnn'. Either the backward pointer is not zero when the forward pointer is zero, or the backward pointer does not point to the last record ID in the parent chain. If this message is preceded by DSN1835I then the child pointer is pointing to a page beyond the high used RBA of the data set. Either the child pointer is invalid or the data set has been truncated.

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1802I RING/LINK CHAIN BROKEN - type RID = nnnnnnnn

Explanation: This message indicates that there is a broken ring or link chain beginning at 'type' (anchor or parent) with record id equal to 'nnnnnnn'. This is one of a series of messages associated with a broken ring or link. It will appear in combination with DSN1803I, DSN1804I, and DSN1805I.

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1803I PARENT RID = nnnnnnnn

Explanation: This message supplies the record id 'nnnnnnn' for the parent record of a detected broken ring or link. This is one of a series of messages associated with a broken ring or link. It will appear in combination with DSN1802I, DSN1804I, and DSN1805I.

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1804I CURRENT RID = nnnnnnnn

Explanation: This message supplies the record id 'nnnnnnn' for the current record at the time the broken ring or link was detected. This is one of a series of messages associated with a broken ring or link. It will appear in combination with DSN1802I, DSN1803I, and DSN1805I.

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1805I PREVIOUS IN CHAIN = nnnnnnnn

Explanation: This message supplies the record id 'nnnnnnn' of the record prior to when the broken ring or link was detected. This is one of a series of messages associated with a broken ring or link. It will appear in combination with DSN1802I, DSN1803I, and DSN1804I.

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Contact Your IBM Support Center for assistance.

DSN1806I IDMAP ENTRY entry-number IN PAGE page-number IS IN ERROR

Explanation: This message indicates that the IDMAP entry 'entry-number' in page 'page-number' is not valid. Valid entries are from X'0014' to X'0Fhh' (depending on the number of IDMAP entries in the page).

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1807I CHILD POINTER chd-rid IN ERROR IN PARENT RECORD par-rid IN PAGE pppppp

Explanation: This message indicates that the parent record with record ID 'par-rid' in page 'pppppp' has a child pointer with an invalid record ID of 'chd-rid'. If this message is preceded by DSN1835I, then the child pointer is pointing to a page beyond the high used RBA of the data set. Either the child pointer is invalid or the data set has been truncated.

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

**DSN1808I OVERFLOW RECORD IN ERROR -
OVERFLOW RID = ovf-rid, POINTER
RID = ptr-rid**

Explanation: This message indicates that the record at record id 'ovf-rid', pointed to by the pointer record at record id 'ptr-rid', is not an overflow record.

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

**DSN1809I OVERFLOW RECORD IN ERROR -
OVERFLOW RID = ovf-rid, HAS NO
POINTER RECORD**

Explanation: This message indicates no pointer record points to the overflow record with record id 'ovf-rid'.

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

**DSN1810I INPUT DATA SET INVALID, NOT A
CHECKABLE SYSTEM TABLESPACE**

Explanation: This message indicates that the data set defined by SYSUT1 is not a checkable table space and therefore cannot be analyzed.

Severity: 8 (error)

System Action: Processing terminates.

System Programmer Response: Correct the SYSUT1 DD statement and rerun the job.

Problem Determination: Checkable system table spaces must be referenced by a hashed entry or contain links. Single-record table spaces referenced by an index are not checkable. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

**DSN1811I ANCHOR POINT PAGE page IS OUT OF
RANGE — VALUE IS LESS THAN 2 OR
GREATER THAN 'E'X**

Explanation: The ANCHOR function has an incorrect page value for the page-slot argument. Anchor points can be found only on pages 2 through 14 (E in hexadecimal). Any anchor point page specified beyond that range is invalid.

Severity: 4 (warning)

System Action: Processing continues with the next set of parameters.

**DSN1812I ORPHAN ID = orph-id ID ENTRY =
entry-val FOUND IN PAGE
page-number**

Explanation: This message indicates that the record with id = 'orph-id' and id entry = 'entry-val' in page 'page-number' is an orphan.

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1813I UNABLE TO DUMP PAGE page-number

Explanation: An error was encountered while retrieving the page and therefore page 'page-number' could not be dumped.

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Examine previous diagnostic and system messages, correct problem, and rerun job.

**DSN1814I UNEXPECTED END OF DATA AT PAGE
page-number**

Explanation: The END-OF-DATA condition was reached before expected at page 'page-number'.

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Examine previous diagnostic and system messages, correct problem and rerun job.

**DSN1815I DSN1CHKR COMPLETED
SUCCESSFULLY, pg-cnt PAGES
PROCESSED**

Explanation: This message indicates the DSN1CHKR successfully completed processing; all checks completed. The 'pg-cnt' represents the number of pages read during check processing, not the number of pages in the table space.

Severity: 0 (informational)

System Action: Processing terminates.

**DSN1816I DSN1CHKR TERMINATED WITH
ERRORS, pg-cnt PAGES PROCESSED**

Explanation: This message indicates the DSN1CHKR did not successfully complete processing. The 'pg-cnt' represents the number of pages read during check

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processing, not the number of pages in the table space.

Severity: 4 (warning) or 8 (error)

System Action: Processing terminates.

Problem Determination: Examine previous diagnostic messages, correct problems if possible and rerun job. Otherwise contact your IBM Support Center for assistance.

DSN1817I ARGUMENT arg-val OF THE MAP COMMAND IS INVALID

Explanation: This message indicates that the argument 'arg-val' of the MAP command is invalid.

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Refer to *DB2 Utility Guide and Reference* for the correct syntax.

Examples of invalid arguments are:

- The offset value of the ANCHOR or HASH option is neither zero (0) nor four (4).
- When the ANCHOR and RID option has been specified, the page number specified is less than two, which would be a nondata page.

DSN1818I IDMAP ENTRY entry-number IN PAGE page-number IS BEING USED BY MULTIPLE CHAINS - ONE OF WHICH IS IN ERROR

Explanation: This message indicates that a record is part of two different chains and therefore creates an invalid structure within the table space. If using the MAP option, the mapping of the chain stops since the path back to the starting record is lost.

Severity: 4 (warning)

System Action: Processing continues.

Problem Determination: Contact your IBM Support Center for assistance.

DSN1819I HASH VALUE FOR dbid CORRESPONDS TO: PAGE = page-number AND ANCHOR POINT OFFSET = offset

Explanation: This message indicates the hash values for the given 'dbid', after applying the hash function, where 'page-number' is the page and 'offset' is the anchor point.

Severity: 0 (informational)

System Action: Processing continues.

DSN1820I MAPPING OF map-opt (val1,val2) HAS STARTED

Explanation: This message indicates that mapping of the indicated option 'map-opt', which is either ANCHOR, HASH, PAGE or RID, has started. The option's arguments, 'val1' and 'val2' will also be mapped. Following this message will be the records of the chain.

Severity: 0 (informational)

System Action: Processing continues.

DSN1821I MAPPING OF 'map-opt' (val1,val2) HAS COMPLETED

Explanation: This message indicates that mapping of the indicated option 'map-opt', which is either ANCHOR, HASH, PAGE, or RID, started. The option's arguments, 'val1' and 'val2', will also be mapped. Preceding this message will be the records of the chain.

Severity: 0 (informational)

System Action: Processing continues.

DSN1822I DBID dbid HASHED TO AN EMPTY ANCHOR POINT - NO ENTRIES FOR THE GIVEN DBID ARE AVAILABLE IN THE TABLESPACE

Explanation: DBID 'dbid' hashed to an empty anchor point. An anchor point with a value of 0 (empty) means that no entries are available in the table space. Therefore, no links are checked.

Severity: 4 (warning)

System Action: Processing continues with the next set of parameters.

DSN1823I INVALID SYNTAX, c EXPECTED

Explanation: This message indicates that an unexpected character was found while parsing the parmlist and that 'c' was the expected character.

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Refer to *DB2 Command Reference* for the correct syntax.

DSN1824I INVALID HEX DATA: hex-data

Explanation: This message indicates that the input value 'hex-data' is not a valid hexadecimal number.

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Correct input value and rerun job.

DSN1825I INPUT VALUE EITHER TOO LONG OR OMITTED: in-val

Explanation: This message indicates that the input value 'in-val' is either greater than 8 hexadecimal digits or was totally omitted.

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Correct input value and rerun job.

DSN1826I RECORD WITH OBID = rec-obid IS INVALID FOR THIS CHAIN

Explanation: This message indicates that the record with OBID 'rec-obid' is invalid for the chain currently being processed, assuming the OBID of the parent or first record processed was not in error.

Severity: 4 (warning)

System Action: Processing terminates.

Problem Determination: If using the MAP function, make sure the given values point to a valid record. Otherwise, contact your IBM Support Center for assistance.

DSN1827I THE SPECIFIED PAGE IS NOT A HASHED DATA PAGE - THE REQUESTED FUNCTION REQUIRES A HASHED DATA PAGE.

Explanation: This message indicates that the HASH or ANCHOR option of the MAP command was issued against a nonhashed data page (that is, a page with no anchor points).

Severity: 4 (warning)

System Action: Processing continues with the next set of parameters.

Problem Determination: If using the ANCHOR function, examine the page-slot argument to ensure that the page value is correct. If using the HASH function, ensure that the 'dbid' value is correct. Otherwise, examine the SYSUT1 DD statement to ensure that the table space is correct. If so, use the RID or PAGE function to achieve the desired mapping.

DSN1828I OBID = rec-obid IS INVALID FOR THIS DATABASE

Explanation: This message indicates that the record with OBID 'rec-obid' is invalid for the database currently being processed.

This message is issued by the following CSECTs: DSN1MAP, DSN1LNKF

Severity: 4 (warning)

System Action: Processing continues with the next set of parameters.

Problem Determination: If using the MAP command, insure that all user supplied offsets actually point to valid data. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN1829I MAPPING MUST STOP AT PARENT RECORD WHEN USING THE BACKWARD POINTER

Explanation: This message indicates that the requested mapping stopped at the parent record rather than the starting record because of the use of backward pointers.

Severity: 4 (warning)

System Action: Processing continues.

DSN1830I INVALID NUMBERS OF VALUES SPECIFIED FOR func-name

Explanation: This message indicates that either:

- No value was specified.
- An odd number of values was specified for a function that requires an even number of values.

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Refer to *DB2 Utility Guide and Reference* for the parameter specifications. Correct the parmlist and rerun the job.

DSN1831I END OF DATE REACHED, PAGE = page-number IS OUT OF RANGE

Explanation: This message indicates that page 'page-no', specified as a parameter of the MAP option, caused the END-OF-DATA condition to be reached. The page number is invalid for the table space being mapped.

Severity: 4 (warning)

System Action: Processing continues with the next set of parameters.

Problem Determination: Correct the page parameter of the MAP option and rerun the job.

DSN1833I ANCHOR POINT IS NOT IN USE

Explanation: The anchor point to be mapped has a value of 0, which means that it is not in use. Therefore, no links are checked.

Severity: 4 (warning)

System Action: Processing continues with the next set of parameters.

DSN1834I **GETMAIN FOR BUFFERS FAILED. NO MORE AVAILABLE STORAGE IN ADDRESS SPACE.**

Explanation: The GETMAIN for page buffers failed. There is no more virtual storage available in the address space. The table space being checked is too large to be processed with the current system configuration.

Severity: 8 (error)

System Action: Processing terminates.

Problem Determination: Make changes to the system configuration, if possible, to allow more virtual storage to be available in the address space.

DSN1835I **THE REQUESTED PAGE page-no IS BEYOND THE END OF THE TABLESPACE.**

Explanation: A request for a page number from an anchor point or a child pointer in a parent record is pointing beyond the high used RBA of the data set. Either the rid is in error or the data set has been truncated.

Severity: 4 (warning)

System Action: The page is marked for output if the FORMAT/DUMP option is in effect. Processing continues.

Problem Determination: Examine previous diagnostic and system messages, correct problem if possible and rerun the job. Otherwise, contact your IBM Support Center for assistance.

DSN1939I *csect-name* **AN INVALID CI SIZE HAS BEEN DETECTED**

Explanation: The VSAM Control Interval (CI) size for the output data set is invalid. The CI size must be 4K, or it must match the page size.

Severity: 8 (error)

System Action: Processing terminates.

System Programmer Response: Redefine the output VSAM data set so that the CI size is either 4K or equal to the page size of the object that is being processed.

DSN1940I *csect-name* **COMPRESSION REPORT**

noncmpbytes
KB WITHOUT COMPRESSION
cmpbytes
KB WITH COMPRESSION
percsave
PERCENT OF THE BYTES WOULD BE SAVED

numdictrows
ROWS SCANNED TO BUILD DICTIONARY

numscanrows
ROWS SCANNED TO PROVIDE COMPRESSION ESTIMATE

numdictents
DICTIONARY ENTRIES

auncmprowlen
BYTES FOR AVERAGE UNCOMPRESSED ROW LENGTH

avgcmprowlen
BYTES FOR AVERAGE COMPRESSED ROW LENGTH

dictpages
DICTIONARY PAGES REQUIRED

noncmppages
PAGES REQUIRED WITHOUT COMPRESSION

cmppages
PAGES REQUIRED WITH COMPRESSION

pctpgsave
PERCENT OF THE DB2 DATA PAGES WOULD BE SAVED

Explanation: DSN1COMP completed successfully. This report contains the compression savings estimate based on the input data set. For a sample of the report, see the DSN1COMP utility in *DB2 Utility Guide and Reference*.

The compression statistics follow:

noncmpbytes
The total number of uncompressed KB (where KB = 1024 bytes) for the data rows (including the row prefix). This number was rounded to the nearest KB.

cmpbytes
The total number of compressed KB for the data rows (including the row prefix). This number was rounded to the nearest KB.

percsave
The percentage of bytes that would be saved if the rows were compressed.

The values above reflect only the number of bytes for the data row and the associated row prefix (6 bytes). DB2 page and dictionary page overhead is not included.

numdictrows
The number of data rows that were used to build the dictionary.

numscanrows
The number of data rows that were processed using the dictionary to produce the compression savings estimate.

numdictents
The number of entries contained in the compression dictionary.

auncmprowlen

Average uncompressed row length.

avgcmprowlen

Average compressed row length.

dictpages

The number of DB2 pages required for the compression dictionary.

noncmppages

The estimated number of DB2 pages required by the uncompressed data rows. Space required for PCTFREE and FREEPAGE is included. This number was rounded up to the next integer.

cmppages

The estimated number of DB2 pages required by the compressed data rows. Space required for PCTFREE and FREEPAGE is included. Dictionary pages are also included. This number was rounded up to the next integer.

pctpgsave

An estimate of the percentage of DB2 pages that would be saved by compressing the data rows.

Severity: 0 (informational)

System Action: The utility completed successfully.

DSN1941I *csect-name* **COMPRESSION ESTIMATE WAS NOT CALCULATED**

Explanation: There is insufficient data to build a compression dictionary. Either the input data set is empty, or the number of rows in the input data set was insufficient to build the dictionary.

Severity: 8 (error)

System Action: Processing terminated.

User Response: Increase the number of rows in the input data set.

DSN1942I *csect-name* **ERROR WHEN BUILDING THE COMPRESSION DICTIONARY**

Explanation: An internal error was encountered while building the dictionary.

Severity: 8 (error)

System Action: Processing terminated.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN1943I *csect-name* **DICTIONARY PAGE ENCOUNTERED**

Explanation: A dictionary page was encountered while processing the input data set. This indicates that the data is in compressed format.

Severity: 8 (error)

System Action: Processing terminated.

User Response: Run DSN1COMP on a data set containing data that is not in a compressed format.

DSN1944I *csect-name* **INPUT PARAMETERS**

Explanation: The input parameters used by DSN1COMP are either user-supplied or default values.

Severity: 0 (informational)

System Action: Processing continues.

DSN1945I *csect-name* **DICTIONARY TREE**

Explanation: The compression dictionary tree follows. Each node is formatted in the SYSPRINT data set.

Severity: 0 (informational)

System Action: Processing continues.

DSN1946I *csect-name* **IMAGE COPY CONTAINING MULTIPLE PARTITIONS**

Explanation: DSN1COMP will build a compression report given sufficient data in the first partition only, of an Image Copy containing multiple partitions.

Severity: 8 (error)

System Action: Processing terminated.

User Response: Run DSN1COMP on an image copy containing a single partition.

DSN1947I *csect-name* **COMPRESSION UNAVAILABLE FOR INDEX SPACES**

Explanation: Index data was provided as input to DSN1COMP. Compression is supported only for table space data.

Severity: 8 (error)

System Action: Processing terminated.

User Response: Provide DSN1COMP with data containing table space data.

DSN1950I **DSN1COPY HAS SUPPRESSED VSAM OPEN VERIFY, ACBERRFLG=acb-error-code.open-option**

Explanation: DSN1COPY suppresses the VSAM VERIFY done by the VSAM OPEN for the SYSUT1 data set. The VSAM VERIFY is not needed for the VSAM

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data sets used by DB2. For DB2 VSAM data sets, the data set hi-used RBA in the ICF catalog is always current.

This message is issued by the following CSECT:
DSN1COPY

Severity: 0 (informational)

System Action: Processing continues.

DSN1951I ODD NUMBER OF HEX CHARACTERS SPECIFIED IN VALUE PARM.

Explanation: The VALUE parameter contained an odd number of hexadecimal characters. Only even numbers of hexadecimal characters are allowed.

This message is issued by the following CSECT:
DSN1VAL

Severity: 8 (error)

System Action: Processing terminates.

User Response: Correct the number of hexadecimal digits specified for the VALUE parameter and resubmit the job.

Problem Determination: Refer to DSN1COPY documentation for parameter requirements in *DB2 Utility Guide and Reference*.

DSN1952I UNEXPECTED END OF INPUT DATA - CHECK FOR INVALID SPECIFICATION OF THE 32K PARAMETER.

Explanation: End of data occurred for the image copy data set specified in SYSUT1 before the first page could be read. Either the wrong input data set was specified or 32KB was specified even though the input data set contains 4KB pages.

This message is issued by the following CSECT:
DSN1COPY

Severity: 8 (error)

System Action: Processing terminates.

User Response: Remove the 32KB parameter if the input data set contains 4KB pages, change the name of the input data set to specify a valid image copy, or remove the FULLCOPY or INRCOPY parameter.

Problem Determination: Refer to DSN1COPY documentation for parameter requirements.

DSN1953I STARTING PAGE NUMBER REQUIRES AN INPUT DATA SET NAME OF data-set-name

Explanation: The starting page number of the page range to be printed is inconsistent with the input data set specified.

This message is issued by the following CSECTS:
DSN1COPY, DSN1PRNT

Severity: 8 (error)

System Action: Processing terminates.

User Response: Ensure that NUMPARTS, the 32KB parameter (or its default of 4KB), and the starting page number are correct. If it is correct, change the input data set name as indicated by the message.

Problem Determination: Refer to DSN1COPY or DSN1PRNT documentation for parameter requirements.

DSN1954I csect-name PARAMETER PAGESIZE OR LOB IS MISSING OR INCORRECTLY SPECIFIED.

Explanation: This message is issued in the following situations:

- The program tried to determine the page size from the first page of the data set, but the first page is not a header page, or
- The first page is a LOB header page and the LOB parameter is missing.

This message is issued by the following CSECTS:
DSN1COPY, DSN1PRNT.

Severity: 8 (error)

System Action: Processing terminates.

User Response: If the input data set is not a LOB table space, specify the PAGESIZE parameter. If the input data set is a LOB table space, specify the LOB or PAGESIZE parameter or both, as appropriate.

DSN1955I SYSUT1 DD CARD IS MISSING

Explanation: No SYSUT1 DD statement was provided.

This message is issued by the following CSECTS:
DSN1COPY, DSN1PRNT, DSN1COMP

Severity: 8 (error)

System Action: Processing terminates.

User Response: Rerun the job with a SYSUT1 DD statement.

DSN1956I csect-name SYNTAX ERROR: parm2 IS SPECIFIED WITHOUT parm1

Explanation: The keyword *parm1* must be specified with *parm2*.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Resubmit the job specifying the correct keyword.

DSN1957I *csect-name* **COMPRESSED RECORDS CANNOT BE EXPANDED DUE TO INCORRECT INPUT DATA SET SPECIFICATION.**

Explanation: DSN1PRNT issues this message when the EXPAND option is specified. The input data set might be an incremental image copy data set.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Resubmit the job specifying the correct input data set.

DSN1958I **INVALID DATA SET NAME.**

Explanation: A DB2 table space was given an incorrect name.

This message is issued by the following CSECT:
DSN1CHDS

Severity: 8 (error)

System Action: Processing terminates.

User Response: Correct the output data set name if FULLCOPY or INRCOPY were specified. If a page range is being printed, correct the input data set name. Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for a discussion of DB2 data set naming conventions.

DSN1959I **BOTH FULLCOPY AND INRCOPY PARAMETERS CANNOT BE SPECIFIED.**

Explanation: DSN1COPY cannot apply to both full images copies and incremental image copies in the same execution. The full image copies are applied first. Each incremental image copy must then be applied in separate steps, starting with the oldest incremental copy.

This message is issued by the following CSECT:
DSN1SDEF

Severity: 8 (error)

System Action: Processing will terminate.

User Response: Omit either FULLCOPY or INRCOPY.

DSN1960I *csect-name input/output* **DATA SET ALLOCATION ERROR. ERROR FIELD IS ERRFIELD *value1*. INFORMATION FIELD IS INFFIELD *value2*.**

Explanation: The allocation of an input or output data set failed. The ERRFIELD *value1* contains the error number; the INFFIELD *value2* contains the information number. See SVC99 error codes in *z/OS MVS Diagnosis: Reference* or *z/OS MVS Programming: Authorized Assembler Services Guide* for help in

determining the cause of the error.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Correct the cause of the allocation error and resubmit the job.

DSN1961I **PIECE NUMBER *value* IS INVALID.**

Explanation: A page was retrieved that has a piece number greater than Numparts for partitioned table spaces or greater than the default of 32 for linear table spaces. 'DPIECNUM *value*' is the piece number for the retrieved page. For page range printing, this message is issued if the starting page number has an invalid piece number as determined from calculations involving Numparts and the page size.

Severity: 8 (error)

System Action: Processing will terminate.

User Response: Look in SYSIBM.SYSTABLESPACE for the correct number of partitions for this page. Correct Numparts or 32KB if they were specified incorrectly, resubmit the job with a valid image copy, or correct the starting page number for page range printing.

DSN1962I **OUTPUT DATA SETS MUST BE VSAM WHEN IMAGE COPY DATA SETS ARE USED AS INPUT TO DSN1COPY.**

Explanation: If image copy data sets are used as input to DSN1COPY, the output data sets must be VSAM. QSAM data sets cannot be used for output.

Severity: 8 (error)

System Action: Processing will terminate.

User Response: Change the output data set to VSAM, or remove the FULLCOPY and Numparts parameters.

DSN1963I **ZERO PAGES ARE INVALID WHEN IMAGE COPY DATA SETS ARE USED AS INPUT TO STAND ALONE UTILITIES.**

Explanation: A page in an IMAGE COPY data set has a zero header. Pages with zero headers are illegal if image copy data sets are used as input to stand-alone utilities.

Severity: 4 (warning)

System Action: Processing continues.

User Response: If the image copy data set name was invalid, look in SYSIBM.SYSCOPY for valid names. Resubmit the valid IMAGE COPY data set to the stand-alone utility. If the IMAGE COPY data set had a valid name, use the REPAIR utility to replace the zero

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pages with valid data pages.

DSN1964I NO VALUE HAS BEEN SPECIFIED FOR THE NUMBER OF PARTITIONS.

Explanation: No value was given for the number of partitions. This value should follow the 'NUMPARTS' parameter.

Severity: 8 (error)

System Action: Processing will terminate.

User Response: Look in SYSIBM.SYSTABLESPACE for the correct number of partitions for this page. Specify the correct number of partitions and resubmit the job. If the page is not partitioned, then either omit the NUMPARTS parameter or specify NUMPARTS as zero.

DSN1965I THE PARTITION NUMBER VALUE IS INVALID.

Explanation: The partition number value following the 'NUMPARTS' parameter is not between 1 and 64.

Severity: 8 (error)

System Action: Processing will terminate.

User Response: Look in SYSIBM.SYSTABLESPACE for the correct number of partitions for this page.

DSN1966I OUTPUT DATA SET odsname NOT FOUND

Explanation: DB2 cannot find 'odsname' because it has not yet been defined.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Use access method services to define 'odsname' and any other VSAM data sets that have not yet been defined.

DSN1967I THE OBID ARRAYS ARE FULL

Explanation: More than 500 records of OBIDs were specified in the SYSXLAT file.

Severity: 8 (error)

System Action: Processing stops.

Problem Determination: DSN1COPY cannot be used for table spaces containing more than 500 tables.

DSN1968I OBIDS SHOULD NOT BE DUPLICATED

Explanation: There should not be any repeated source OBIDs or target OBIDs within the SYSXLAT file.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Change the SYSXLAT file.

DSN1969I SYSXLAT FILE CAN NOT BE OPENED

Explanation: The QSAM OPEN for the SYSXLAT file failed because no DD statement was provided.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Notify system programmer.

System Programmer Response: Provide a SYSXLAT DD statement if OBID translate is to be done. Otherwise, remove the SYSXLAT parameter and rerun.

Problem Determination: Follow standard QSAM diagnostic procedures.

DSN1970I DATA PAGE CONTAINING OBID xxxx, HAS NO MATCHING VALUE IN THE SYSXLAT FILE

Explanation: One of the OBID records of the SYSXLAT file contains a source OBID value that does not match the OBID value of the source system.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide that record of the SYSXLAT file which contains an unmatched OBID value with an OBID that matches the OBID value of the source system.

This error can also be caused when an OBIDXLAT is attempted on an incremental image copy of a compressed segmented table space. For more information on how to proceed, see the OBIDXLAT option description under DSN1COPY in *DB2 Utility Guide and Reference*.

DSN1971I DBID xxxx NOT FOUND IN THE SYSXLAT FILE. REPLACE SOURCE DBID xxxx OF THE SYSXLAT FILE WITH IT.

Explanation: The first record of the SYSXLAT file has the incorrect source DBID value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the first record of the SYSXLAT file with a source DBID value which matches the DBID value of the source system.

**DSN1972I PSID xxxx NOT FOUND IN THE
SYSXLAT FILE REPLACE SOURCE
DBID xxxx OF THE SYSXLAT FILE
WITH IT**

Explanation: The second record of the SYSXLAT file has the incorrect source PSID value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the second record of the SYSXLAT file with the correct PSID value.

DSN1973I SOURCE DBID IS MISSING

Explanation: The first record of the SYSXLAT file contains no DBID value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the first record of the SYSXLAT file with a pair of source and target DBID values which match the DBID values of the source and target systems.

DSN1975I SOURCE PSID IS MISSING

Explanation: The second record of the SYSXLAT file contains no PSID value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the second record of the SYSXLAT file with a pair of source and target PSID values which match the PSID values of the source and target systems.

DSN1976I TARGET PSID IS MISSING

Explanation: The target PSID is missing from the second record of the SYSXLAT file.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the second record of the SYSXLAT file with a target PSID value which matches the PSID values of the target system.

DSN1977I SOURCE OBID IS MISSING

Explanation: There is a record in the SYSXLAT file with no OBID value.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Correct the SYSXLAT file so that all the records following the first and second records will contain a pair of source and target OBID values.

DSN1978I TARGET OBID IS MISSING

Explanation: There is a record in the SYSXLAT file with no target OBID value specified.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the SYSXLAT file with an OBID value that matches the OBID value of the target system.

**DSN1979I csect-name SOURCE & TARGET
VALUES MUST BE WITHIN THE
RANGE OF 1 TO 65535.**

Explanation: The SOURCE and TARGET values of the SYSXLAT file must be between 1 and 65535.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Provide the SYSXLAT file with values that are between 1 and 65535.

**DSN1980I BROKEN PAGE BIT SET, WILL RESET
AND RETRY BROKEN PAGE TEST**

Explanation: This message indicates that a broken page was detected. If message DSN1990I is issued following this message, determine the cause of the broken page. If message DSN1990I is not issued, reset the broken page bit with the REPAIR utility to correct the problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Severity: 4 (warning)

System Action: Processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: Use either the RECOVER or REPAIR utility to correct the broken page. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem determination should have been done when the dump associated with the setting of the broken page bit was requested.

**DSN1981I INVALID PARAMETER FIELD:
bad-parameter**

Explanation: An invalid input parameter was detected on the EXEC statement. The parameter is either not a valid keyword or it has invalid subparameters associated with it.

Examples of invalid subparameters are:

- The Numparts subparameter was other than '(nn)'. 'nn' is a decimal number.

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- The Numparts subparameter was missing either a left or right parenthesis.
- The PRINT subparameter was missing either a left or right parenthesis.
- The PRINT subparameter specified a digit in a page number which was not hexadecimal.
- The PRINT subparameter contained a starting page number that is larger than the ending page number.
- The PRINT subparameter contains a page number larger than six hexadecimal digits.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Correct the indicated parameter on the EXEC DD statement, and resubmit the job.

Problem Determination: Refer to DSN1COPY, DSN1PRNT, or DSN1COMP documentation for parameter requirements.

DSN1982I NO BLANKS ARE ALLOWED WITHIN THE PARAMETER LIST

Explanation: There is a space or spaces between one or more parameters in the utility list.

Severity: 8 (error)

System Action: Processing is terminated.

User Response: Check the parameter list and make sure that there are no spaces between any of the parameters.

DSN1983I *csect-name* DICTIONARY IS INVALID, REASON= X'nnnn'

Explanation: The dictionary found in the data set is invalid. A DB2 internal error occurred during the validation of the expansion dictionary.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Verify that the correct data set is specified. You can delete the EXPAND option and resubmit the job.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The REASON identifies the nature of the error. The REASON is used for diagnostic purposes by the IBM Support Center.

DSN1984I UNEXPECTED PAGE NUMBER, EXPECTING: expected-page-number

Explanation: This message indicates that an unexpected page number was encountered. This message may be received if the input data set is an image copy but the FULLCOPY or INRCOPY parameters were not specified. The 'expected page number' that is displayed (in hexadecimal) is the page number that was expected, not the one that was encountered.

Severity: 4 (warning) or 8 (error)

System Action: Processing is terminated.

User Response: Notify the system programmer.

System Programmer Response: Use DSN1PRNT to dump the table space or index space. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN1985I ZERO PAGES ENCOUNTERED. FIRST PAGE = first-zero-page-number, LAST PAGE = last-zero-page-number

Explanation: One or more pages zero pages were encountered with valid data pages after them. A zero page is a page of all zeros or a page with only the page-synchronization bit on in the first and last byte of the page. The 'first zero page number' and the 'last zero page number' displayed in hexadecimal are the pages where zeros were first encountered and last encountered. In most cases, this is not an error condition. This is a normal condition for segmented table spaces and also for index spaces created with a FREEPAGE parameter not equal to zero. In addition, it is also normal for nonsegmented table spaces to contain zero pages after certain update scenarios terminated abnormally and data rollback was required.

Severity: 4 (warning)

System Action: Processing continues.

User Response: Notify the system programmer.

System Programmer Response: If the zero page is the result of segmenting, no action is necessary. Similarly, if the zero page is a valid zero page that was introduced by DB2, no action is necessary as this page is free space and is used by DB2 when needed. If the zero page is a valid zero page and you want to remove it from the table space, run the REORG utility.

To help determine if the zero page was validly introduced by DB2, run the CHECK INDEX utility. This assumes that at least one index is defined on the affected table space.

If the zero page is determined to be invalid, you need to run the RECOVER utility.

DSN1986I NEITHER FULLCOPY NOR INRCOPY PARAMETERS MAY BE SPECIFIED WITH THE SEGMENT PARAMETER.

Explanation: The parameters SEGMENT, FULLCOPY, and INRCOPY describe the type of input that SYSUT1 references. SEGMENT is only relevant when a table space or index space is the input. FULLCOPY and INRCOPY are only relevant when a image copy is the input. If the input data set is a segmented table space, then the FULLCOPY or INRCOPY parameters should not be specified. If the input data set is a full or incremental image copy, then SEGMENT should not be specified.

Severity: 8 (error)

System Action: Processing will terminate.

User Response: Omit the incorrect parameter.

DSN1987I csect-name INDEX PAGE CONTAINING OBID id HAS NO MATCHING VALUE IN THE SYSXLAT FILE.

Explanation: This message is issued when the OBID on the page does not find a matching value in the input source OBID list. This message can also be issued when the input does not have enough OBID values.

Severity: 8 (error)

System Action: Processing terminates with a dump of the page on which the OBID does not find a match in the source list.

User Response: Resubmit the job with correct input OBID values.

DSN1988I csect-name EXPAND KEYWORD IS SPECIFIED BUT DICTIONARY IS NOT FOUND

Explanation: DSN1PRNT issues this message when the EXPAND option is specified. The dictionary was not found in the data set. An incorrect data set piece is specified or an incorrect data set number is specified for a multi-piece linear data set.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Resubmit the job specifying the correct keyword or the correct data set name.

DSN1989I csect-name IS PROCESSED WITH THE FOLLOWING OPTIONS:

:

- *check/32K/fullcopy/incrcopy/segment/*
- *numparts=n/format/expand/swonly/*
- *print/value/obidxlat/reset/no check/4K/*
- *no imagecopy/nonsegment/numparts=0/*

- *no print/no value/no obidxlat/*
- *no format/no reset/no expand/no swonly*

Explanation: The stand-alone utility named *csect-name* is processing with the options that are either specified or supplied by default.

Severity: 0 (informational)

System Action: Processing continues.

User Response: Make sure that the parameters are correct. Not specifying the parameters correctly can give unpredictable results.

DSN1990I csect-name BROKEN PAGE. PAGE NUMBER = broken-page-number. REASON: comment, SERVICE INFO: CODE = c1, d1 = v1 ... dn = vn

Explanation: During page checking, the page was detected as broken for the reason given in the message. The page number is displayed in hexadecimal format.

Severity: 4 (warning)

System Action: Processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: Use either the RECOVER or REPAIR utility to correct the broken page.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Service information is used for diagnostic purposes by the IBM Support Center.

DSN1991I UNCLUSTERED DATA DETECTED. RID: 'xxxxxxx'X TABLE: tablename INDEX KEY: index-key

Explanation: Data is not broken. Only the arrangement of data on one of the following DB2 Catalog table spaces: SYSDBASE, SYSPLAN, and SYSVIEWS has been affected. Normally, data on these pages is arranged to minimize locking contention. DSN1COPY found that the arrangement of data no longer minimizes locking contention for the objects named by the INDEX KEY for the given TABLE. Therefore, an increase in the number of deadlocks and timeouts may be seen on SYSDBASE, SYSPLAN, and SYSVIEWS.

System Action: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Contact your IBM Support Center for assistance. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 64.

DSN1992I VSAM PUT ERROR, RPLERREG =
return-code, RPLERRCD = *reason-code*

Explanation: VSAM PUT failed with the indicated error code.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Notify system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedures. See *z/OS DFSMS: Macro Instructions for Data Sets* for more information on the standard VSAM procedures, the RPL fields, and the VSAM control blocks.

DSN1993I DSN1COPY/DSN1PRNT/DSN1COMP
TERMINATED, *page-count* PAGES
PROCESSED

Explanation: This message indicates that a stand-alone utility has not successfully completed processing. The page count is displayed in decimal format.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Examine the previous error message of the application program.

System Programmer Response: Correct the previous error and resubmit the job.

DSN1994I DSN1COPY/DSN1PRNT/DSN1COMP
COMPLETED SUCCESSFULLY,
page-count PAGES PROCESSED

Explanation: This message indicates that a stand-alone utility successfully completed processing. The page count is displayed in decimal format.

Severity: 0 (informational)

System Action: Processing terminates.

DSN1995I VSAM GET ERROR, RPLERREG =
return-code, RPLERRCD = *reason-code*

Explanation: VSAM GET failed with the indicated error code.

Severity: 8 (error)

System Action: Processing terminates.

User Response: Notify system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedures. See *z/OS DFSMS: Macro Instructions for Data Sets* for more information on the standard VSAM procedures, the RPL fields, and the VSAM control blocks.

DSN1996I VSAM OPEN ERROR, ACBERRFLG =
ACB error-code. OPEN *option*

Explanation: VSAM OPEN failed with the indicated 'ACB error-code'. The OPEN option was either 'INPUT' or 'OUTPUT'.

Severity: 8 (error) if error is greater than or equal to 128; otherwise, severity code is 4.

System Action: Processing terminates if error code is greater than or equal to 128; otherwise, processing continues normally.

User Response: Notify system programmer.

System Programmer Response: Follow standard VSAM diagnostic procedure. See *z/OS DFSMS: Macro Instructions for Data Sets* for more information on the standard VSAM procedures and the VSAM control blocks.

DSN1997I OUTPUT DSNAME = *data-set-name*,
data-set-type

Explanation: The indicated 'data set name' is used for output. 'data set type' is either VSAM or SEQ (for sequential).

Severity: 0 (informational)

DSN1998I INPUT DSNAME = *data-set-name*,
data-set-type

Explanation: The indicated 'data-set-name' is used for input. 'data-set-type' is either VSAM or SEQ (indicating sequential).

Severity: 0 (informational)

DSN1999I START OF
DSN1COPY/DSN1PRNT/DSN1COMP
FOR JOB *job-name step-name*

Explanation: This message indicates that a stand-alone utility started processing.

Severity: 0 (informational).

System Action: The stand-alone utility starts processing.

Chapter 26. DSN2... messages

There are two versions of the CICS attachment facility:

- The version shipped with DB2 requires CICS Version 3 Release 3 or an earlier release. This attachment facility issues DSN2xxx messages.
- The version shipped with CICS requires a CICS release later than Version 3 Release 3. This attachment facility issues DSN2xxx messages.

DSN2001I CICS UR INDOUBT RESOLUTION IS INCOMPLETE FOR *ssid*

Explanation: CICS cannot resolve the disposition of the units of recovery that DB2 holds indoubt from the previous connection because CICS was cold started.

System Action: The CICS attachment facility continues the startup process.

Operator Response: Notify the CICS system programmer.

System Programmer Response: You must resolve the indoubt units of recovery manually by issuing the DB2 -DISPLAY THREAD and -RECOVER INDOUBT commands.

DSN2002I *csect-name* DSN2CT_{xx} MODULE NOT FOUND

Explanation: The resource control table DSN2CT with suffix *xx* could not be loaded.

System Action: The CICS attachment facility initialization terminates.

User Response: Reenter the start command with the correct suffix. Ensure that the resource control table DSN2CT is in the correct application program library, which is concatenated in the JOBLIB or STEPLIB statement of your CICS startup JCL.

If DSN2CT is not in your application program library, ensure that you are using the correct version of the DSNCRCT macro to assemble DSN2CT. For CICS versions later than Version 3 Release 3, the correct DSNCRCT macro is in the CICS macro library rather than in the DB2 macro library.

DSN2003I THE ATTACHMENT FACILITY IS ALREADY ACTIVE

Explanation: The CICS attachment facility is already active and enabled to CICS.

System Action: The CICS attachment facility initialization is terminated.

Operator Response: Only one CICS attachment facility is permitted.

DSN2004I THE PLAN NAME IS NOT FOUND IN THE RCT

Explanation: This message is the response to a DSN2 DISPLAY or DSN2 DISCONNECT command. The plan specified in the command was not found in the resource control table (RCT).

System Action: The CICS attachment facility command is not processed.

Operator Response: Reenter the command with the correct plan name.

DSN2005I THE TRANSACTION NAME IS NOT FOUND IN THE RCT

Explanation: This message is the response to a DSN2 DISPLAY or DSN2 MODIFY command. The transaction specified in the command was not found in the resource control table (RCT).

System Action: The CICS attachment facility command is not processed.

Operator Response: Reenter the command with the correct transaction name.

DSN2006I THE *dest* DESTINATION ID IS INVALID

Explanation: This message is the response to a CICS attachment facility command. The destination ID *dest* specified in the command was not found in the CICS destination control table (DCT) or the resource control table (RCT).

System Action: The CICS attachment facility command is not processed.

Operator Response: Reenter the command with the correct destination ID.

DSN2007I THE COMMAND VERB IS MISSING OR INVALID

Explanation: The CICS attachment facility does not recognize the ACTION keyword on the entered command.

System Action: The command is not processed.

Operator Response: Reenter the command with the correct syntax.

DSN2008I KEYWORD IS MISSING OR INVALID

Explanation: A CICS attachment facility command contains an unknown positional keyword or a keyword is missing.

System Action: The command is not processed.

Operator Response: Reenter the command with the correct syntax.

DSN2009I THE VALUE IN THE COMMAND IS INVALID

Explanation: The numeric value in the DSN MODIFY command might be invalid. Otherwise, the error is caused by one of the following:

- The value in the command is greater than the value specified for the THRDM parameter in the resource control table (RCT).
- If the POOL RCT entry is being changed, the active thread count cannot be set to less than 3.

System Action: The command is not processed.

Operator Response: Reenter the command with a valid value.

System Programmer Response: If the number of threads required is more than the number allowed in the resource control table (RCT), specify a larger number of threads in the THRDM parameter and regenerate the table.

DSN2011I *tran* TRANSACTION ABENDED BECAUSE THREADS ARE UNAVAILABLE

Explanation: The transaction with CICS transaction ID *tran* was abnormally terminated because a thread connection to DB2 was not available for the transaction. This error message can occur when:

- TWAIT of the transaction entry in the resource control table is NO.
- TWAIT of the transaction entry is POOL, TWAIT in the pool entry is NO, and all threads in the POOL are active.

System Action: The indicated transaction is abended. No other action is taken by the CICS attachment facility

Operator Response: Notify the CICS system programmer.

System Programmer Response: Determine which of the following actions will correct the problem:

- If more threads are available with the current generation of the resource control table (RCT), tell the master terminal operator to make more threads active by using the DSN MODIFY command.

- Regenerate the RCT and make more threads available to the transaction that failed. Stop and then restart the CICS attachment facility to make the new RCT active.

DSN2012I THE ATTACHMENT FACILITY STOP QUIESCE IS PROCEEDING

Explanation: A DSN STOP command entered by the master terminal operator is being processed.

System Action: The CICS attachment facility releases the terminal entering the command and proceeds with the quiesce process.

Operator Response: If the quiesce is not completed within the required time period, you can enter a DB2 -STOP FORCE command.

DSN2013I DISPLAY REPORT FOLLOWS

Explanation: A CICS attachment facility display was requested and follows this message.

System Action: Processing continues.

DSN2014I STATISTICS REPORT FOR *rct-name* FOLLOWS

Explanation: A CICS attachment facility statistics display was requested and follows this message. The name of the resource control table (RCT) that is currently in use is *rct-name*.

The following information is displayed for each entry in the RCT:

TRAN CICS transaction name.

PLAN DB2 plan name.

CALLS Total number of SQL statements in this connection.

AUTHS Total number of sign-on invocations for transactions associated with this entry. A sign-on does not indicate whether a new thread is created or an existing thread is reused. If the thread is reused and TOKENE=NO, a sign-on occurs only if the authorization ID or transaction ID has changed.

W/P Number of times all available threads for this entry were busy and the transaction had to wait or the thread request was diverted to the POOL.

HIGH Maximum number of concurrent threads required by transactions associated with this entry at any time since the CICS attachment facility was started.

ABORTS Total number of units of recovery that were rolled back.

COMMITTS

One of the following two fields is incremented each time a DB2 transaction associated with this entry has an explicit or implicit (such as EOT) sync point.

1-PHASE

The total number of single phase commits for transactions associated with this entry.

2-PHASE

The total number of two phase commits for transactions associated with this entry.

For a more detailed explanation of the fields in the statistics report, refer to "Controlling CICS Connections" in Part 4 (Volume 1) of *DB2 Administration Guide*.

System Action: Processing continues normally.

DSN2015E *csect* **THE ATTACHMENT FACILITY FOR *name* IS IN STANDBY**

Explanation: The CICS attachment facility has dropped into standby mode because DB2 has stopped and STANDBY=SQLCODE was specified in the RCT.

System Action: The CICS attachment facility will issue negative SQLCODEs for all SQL requests.

Operator Response: Restart the attachment after DB2 is restarted.

DSN2016I *csect-name* **THE CONNECTION OF CICS WITH *name* FAILED, '*reason-code*'**

Explanation: The CICS attachment facility is terminating abnormally because an error occurred while connecting with DB2. The error is indicated by *reason-code*, and the specific DB2 subsystem is indicated by *name*.

System Action: The CICS attachment facility terminates with abend completion code X'04E'. If the initial identify fails because of an authorization error, DSN2042I is issued and no dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Look up *reason-code* to determine the specific failure that caused the termination.

DSN2017I **ATTACHMENT OF A THREAD SUBTASK FAILED**

Explanation: The CICS attachment facility continues processing but is unable to start as many thread subtasks as are allowed in a resource control table (RCT) entry.

System Action: The CICS attachment facility attempted to terminate all subtasks that are currently unused, but none could be terminated. If other subtasks are not active to process the current transaction, CICS

is requested to abend the transaction.

Operator Response: Notify the system programmer.

System Programmer Response: The error might be caused by one of the following:

- There is a shortage of storage in the local storage queue area (LSQA).
- The maximum number of thread subtasks allowed was reached. The maximum is specified in the THRDMAX parameter of RCT. The DSNCL DISPLAY STATISTICS command is useful in analyzing the current thread usage.

DSN2018I *name* **IS NOT ACTIVE**

Explanation: The DSNCL STRT command cannot proceed because subsystem *name* is not active.

System Action: The DSNCL STRT command processing ends without starting the CICS attachment facility.

Operator Response: Reenter the CICS attachment facility command after DB2 is started.

DSN2019I **THE MODIFY COMMAND IS COMPLETE**

Explanation: The DSNCL MODIFY command completed successfully.

DSN2020I **THE DISPLAY COMMAND IS COMPLETE**

Explanation: The DSNCL DISPLAY command completed successfully.

DSN2021I **THE DISCONNECT COMMAND IS COMPLETE**

Explanation: The DSNCL DISCONNECT command completed successfully.

DSN2022I **THE ATTACHMENT FACILITY STOP FORCE IS PROCEEDING**

Explanation: A DSNCL STOP FORCE command entered by the master terminal operator is being processed.

System Action: The CICS attachment facility releases the terminal entering the command and proceeds with the STOP FORCE processing.

DSN2023I **THE ATTACHMENT FACILITY HAS CONNECTED TO *name* USING *rct-name***

Explanation: The DSNCL STRT command successfully completed. Subsystem *name* is now available to CICS. The name of the resource control table (RCT) that was

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specified for this start of the CICS attachment facility is *rct-name*.

System Action: The DSNC STRT command completes processing. The CICS attachment facility is active.

DSN2024I *dest* CANNOT BE LOCATED IN THE DCT

Explanation: The destination shown in the message cannot be located in the CICS destination control table (DCT).

System Action: The CICS attachment facility startup process continues. The destination entry in the resource control table (RCT) is set to '*' for potential modification by the CICS attachment facility.

Operator Response: Notify the system programmer. Use the DSNC MODIFY command to set the error destination to the correct identification characters.

System Programmer Response: Correct either the RCT or the DCT to synchronize the error destinations.

DSN2025I THE ATTACHMENT FACILITY IS INACTIVE

Explanation: This is the final message issued by the CICS attachment facility to inform the resource control table error destinations that the CICS attachment facility completed the shutdown process.

System Action: The CICS attachment facility is terminated.

DSN2026I DSN2STOP FAILED TO DISABLE THE *name* RMI EXIT

Explanation: The CICS attachment facility failed to disable the named resource manager interface (RMI) exit. Either the exit was in use at the time DSN2STOP tried to disable it, or an abend occurred in the RMI exit code while the 'in use' flag was on. The CICS system must be stopped and restarted before the CICS attachment facility can be restarted.

System Action: The CICS attachment facility continues termination processing after dumping the CICS trace, the resource control table (RCT), and the connection control table (CCT).

Operator Response: Notify the CICS attachment facility system programmer. CICS must be stopped and restarted before restarting the CICS attachment facility.

System Programmer Response: This could be a problem in the CICS 'task-related user exit'. Analyze the trace and any dumps associated with this execution to determine the source of the error.

DSN2027I SHUTDOWN IS IN PROGRESS. *transaction* COMMANDS MAY NOT BE ENTERED

Explanation: The CICS attachment facility does not accept commands directed to DB2 during or after the termination of the CICS attachment facility.

System Action: The command is rejected.

User Response: Notify the CICS attachment facility system programmer.

DSN2028I USER IS NOT AUTHORIZED FOR *transaction* COMMANDS

Explanation: DB2 rejected the command request during the sign-on of the user. Therefore, the user is assumed to be unauthorized for the requested function in the command.

System Action: The command is rejected.

Operator Response: Notify the CICS attachment facility system programmer.

System Programmer Response: The authorization ID used is described in the generation procedures of the resource control table (RCT). If this user should be allowed access to the command, use the GRANT statement to grant authorization.

DSN2029I *transaction* COMMAND FAILED, REASON CODE *rc*

Explanation: The DB2 command, identified in the message as *transaction*, failed to return a response message indicating the action taken by the command. DB2 returned reason code *rc*.

System Action: The results of the command are unknown.

Operator Response: Notify the CICS attachment facility system programmer.

System Programmer Response: Check the master console for any messages indicating why the command failed. Refer to the explanation of the reason code returned by DB2 in Part 4, "Section 4. DB2 Codes," on page 773.

DSN2030E AN ERROR HAS OCCURRED WRITING TO THE TRANSIENT DATA OUTPUT DESTINATION *destination*

Explanation: The CICS attachment facility encountered an error while writing to the indicated destination.

System Action: The CICS attachment facility continues operation.

Operator Response: Notify the system programmer. If the destination is one of the resource control table error

destinations, use the CICS MODIFY command to change the destination code to another destination, if one is available.

System Programmer Response: Follow CICS procedures to correct the error. Refer to *CICS Transaction Server for z/OS Problem Determination Guide* for additional information.

DSN2031I THE COMMAND IS INVALID. THE ATTACHMENT FACILITY IS INACTIVE

Explanation: STRT is the only valid command when the CICS attachment facility is inactive. No other commands to the CICS attachment facility are accepted.

System Action: The command is rejected.

DSN2032I *transaction* COMMAND ALTERNATE DESTINATION OUTPUT COMPLETE

Explanation: The DB2 command identified in the message as *transaction* is complete. The resulting output should be available at the requested device.

System Action: Processing continues normally.

DSN2033I TERMINAL *termid* IS NOT SUPPORTED BY BMS OR IS INVALID

Explanation: This message is issued in response to a CICS attachment facility or DB2 command that requested an alternate destination for the response. CICS basic mapping support (BMS) encountered an error while routing to the requested terminal named *termid*.

System Action: The output from the command might be suppressed.

Operator Response: Ensure that the terminal ID was correctly entered. Otherwise, notify the system programmer.

System Programmer Response: Verify that the terminal ID is valid. This message might occur if the destination device is not supported by BMS or if it is not defined to CICS. If *termid* is CSMT, this message might also follow message DSN2030E. The attachment facility unconditionally routes output to terminal CSMT following a transient data destination error.

DSN2034I INDOUBT RESOLUTION FOR *ur-id* IS INCORRECT

Explanation: CICS indicates recovery is required for the *ur-id*, but the unit of recovery is not indoubt to DB2.

System Action: The CICS attachment facility continues the startup process.

Operator Response: Notify the CICS system programmer.

System Programmer Response: CICS tried to

recover a unit of recovery using an identifier that was not in the resolution request list from DB2. Use the DB2 -DISPLAY THREAD and -RECOVER INDOUBT commands to ensure that all indoubt units of recovery are resolved.

You must identify the reason for the inconsistency. A DB2 cold start, for example, might cause the problem.

DSN2035I INDOUBT RESOLUTION FOR *ur-id* IS INCOMPLETE

Explanation: CICS indicates recovery should not be required for the *ur-id*, but DB2 is indoubt.

System Action: The CICS attachment facility continues the startup process.

Operator Response: Notify the CICS system programmer.

System Programmer Response: CICS cannot recover a unit of recovery using an identifier that was in the resolution request list from DB2. Use the DB2 -DISPLAY THREAD and -RECOVER INDOUBT commands to ensure that all indoubt units of recovery are resolved.

You must identify the cause of the error. A CICS cold start could cause this problem.

DSN2036I INDOUBT RESOLUTION FOR *ur-id* IS INCONSISTENT

Explanation: CICS indicates recovery resolution for the *ur-id* should be ABORT (backout), but DB2 indicates the resolution should be COMMIT.

This error can be caused by a damaged CICS system journal file.

System Action: DB2 committed the unit of recovery. The CICS attachment facility continues the startup process.

Operator Response: Notify the CICS system programmer.

System Programmer Response: CICS and/or DB2 restart processes are not in synchronization. You must identify the cause of the error. Take appropriate action to return all resources to a consistent state.

DSN2037A *subsystem* IS NOT ACTIVE *transaction* IS WAITING

Explanation: The CICS attachment facility start transaction identified in the message is waiting for notification from the indicated DB2 subsystem that it is active. The start of the CICS attachment facility is complete after DB2 has started.

System Action: The CICS attachment facility waits to complete the start process.

Operator Response: Start the DB2 subsystem.

DSN2038I THE COMMAND IS INVALID WHILE WAITING FOR *subsystem name*

Explanation: The command entered cannot be processed while the CICS attachment facility is waiting for the DB2 subsystem to start. The name of the DB2 subsystem that is not yet operational is *subsystem name*.

System Action: The command is rejected.

DSN2039I THE ERROR DESTINATIONS ARE: *d1 d2 d3*

Explanation: This message is the response to the DSNM MODIFY DESTINATION command that lists the currently active message destinations known to the CICS attachment facility. Null entries that show as '*****' can be modified so they identify actual destinations.

DSN2040I MODULE *name* COULD NOT BE FOUND

Explanation: During the CICS attachment facility initialization, an attempt was made to locate and load the named module, but it was not found in any of the libraries accessible to MVS through the MVS LOAD macro.

System Action: The CICS attachment facility initialization is terminated.

Operator Response: Notify the CICS attachment facility system programmer.

System Programmer Response: Check the CICS JOBLIB/STEPLIB libraries and ensure that the CICS SDFHAUTH and the DB2 SDSNLOAD libraries are defined there.

DSN2041I NO ACTIVE THREADS

Explanation: A DSNM DISPLAY TRANSACTION or DSNM DISPLAY PLAN command was entered, but there were no active threads created. The CICS attachment facility might have identified and signed on the attached subtasks, but a create thread was not issued for any of the subtasks.

DSN2042I CONNECTION NOT AUTHORIZED TO *name*

Explanation: The attempt to connect to the named DB2 subsystem failed because the user was not authorized to access DB2. Authorization was denied by either RACF or a user-written connection exit.

System Action: The CICS attachment facility terminates.

Operator Response: Notify the system programmer.

System Programmer Response: The user specified on the CICS job was not authorized to connect to the

named DB2 subsystem. Refer to Part 3 (Volume 1) of *DB2 Administration Guide* for information on how to authorize a user to access DB2.

DSN2043I DSN2STOP ENCOUNTERED ERROR, RECOVERY ROUTINE started/completed

Explanation: A CICS abend occurred while disconnecting the CICS attachment facility from DB2 and deleting it from storage. This message might be issued twice. It is issued at the start of the abend recovery routine, which is indicated by 'started' in the message text. If the recovery routine is successful, the message is issued with 'completed' in the message text.

System Action: If the recovery routine is not successful, program DSN2STOP terminates with a CICS transaction dump. If the recovery routine is successful, the CICS attachment facility is terminated normally.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze any abend dumps associated with this message to determine the cause of the failure.

DSN2044I DSNCRCT ENTRY HAS BEEN CORRUPTED OR OVERLAID

Explanation: The CICS attachment facility detected that a resource control table (RCT) entry was corrupted or overlaid since the CICS attachment facility was last started.

System Action: The CICS task is abended with reason code 00C30011. No other action is taken by the CICS attachment facility.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the abend dumps associated with this message to determine which CICS transaction and RCT entry was corrupted. Restart the CICS attachment facility to obtain a valid copy of the RCT.

DSN2045I RESOURCE MANAGER *rmi-name* IS UNKNOWN TO CICS ATTACH FACILITY

Explanation: The CICS attachment facility received a request from a resource manager interface (RMI) named *rmi-name*. This RMI is not known by the CICS attachment facility.

System Action: The CICS task is abended with a CICS transaction dump.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the CICS transaction dump to determine the source of the unknown resource manager interface (RMI) request.

Problem Determination: CICS dump information, such as the trace table and program storage, can aid in determining which module issued the request. The CICS EXEC interface block resource name field, EIBRSRCE, contains the name of the RMI.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN2046I RCT RELEASE LEVEL *nnnn* IS INCONSISTENT WITH CICS ATTACH RELEASE LEVEL *mmmm*

Explanation: The resource control table (RCT) release level *nnnn* does not match the CICS attachment facility release level *mmmm*.

This message is issued by the following CSECT: DSN2STRT

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble the RCT using the correct DB2 release level *mmmm* DSNCRCT macro.

DSN2047I TWA SIZE IS TOO SMALL FOR TRANSID *tran*

Explanation: The CICS TWASIZE defined for transaction *tran* is too small to support the CICS attachment facility command processor program (DSN2COM1).

System Action: The CICS attachment facility abends this CICS task with a CICS transaction abend.

Operator Response: Notify the system programmer.

System Programmer Response: Redefine the command processor transaction to specify the correct TWASIZE.

DSN2048I UNABLE TO INTERPRET SQL CALL WHILE FORMATTING AN EDF DISPLAY TRAN *tran* TASK *task*

Explanation: The CICS attachment facility was unable to decipher storage associated with an SQL statement for CICS transaction *tran* and task id *task*. Either the SQL communications area (SQLCA) or the RDS input parameter list (RDI) storage could not be interpreted by the CICS attachment facility.

System Action: A CICS transaction dump is taken of the storage in question.

Programmer Response: Ensure that CICS storage associated with this task was not altered or overlaid. Analyzing the storage in the CICS transaction dump might provide clues about the source of the problem.

Problem Determination: Analyze the CICS transaction dump of the storage in question. In this

situation the information supplied by the Execution Diagnostic Facility (EDF) of CICS for SQL statements consists of:

- The EDF status: ABOUT TO EXECUTE or COMMAND EXECUTION COMPLETE
- The processing status: CALL TO RESOURCE MANAGER DSNCSQL
- The ARG values associated with this call to the CICS attachment facility resource manager

No other information is provided about the SQL statement.

DSN2049E *csect-name* RECOVER INDOUBT FOR urid FAILED WITH *reason-code*

Explanation: A resolve indoubt request passed to DB2 from CICS failed.

System Action: The attachment leaves the unit of recovery indicated by 'urid' indoubt in CICS and DB2. The attachment requests a system dump of the CICS region.

System Programmer Response: Use the reason code to determine why the RECOVER INDOUBT request failed. If necessary, manually resolve the unit of recovery using the RECOVER INDOUBT command.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 82,

DSN2052I INSUFFICIENT STORAGE AVAILABLE TO START ATTACHMENT FACILITY

Explanation: During startup the CICS attachment facility was unable to allocate the required amount of storage. This message might be issued if an error occurs while the attachment facility is loading the data only load module, DSN2CTxx.

System Action: The CICS attachment facility is not initialized.

System Programmer Response: Allow a larger amount of dynamic storage on your CICS system. Alternatively, you can delete unused entries or lower THRDA and THRDM values in your RCT, which reduces the size of the storage that the attachment facility requires.

For a load error, check the MVS console log for any preceding messages to determine why the load failed. If there is not enough free REGION space to load the RCT, see the appropriate CICS documentation for information on tuning your CICS system.

**DSN2053I INSUFFICIENT TWASIZE FOR
DSN2COM1. REQUIREMENT IS *twasize***

Explanation: The CICS attachment facility requires a TWASIZE of *twasize* on all transactions that execute DSN2COM1. Either the TWASIZE that was specified is less than the requirement, or no TWASIZE was specified at all.

System Action: The attachment facility terminates.

System Programmer Response: Ensure that CSD group DFHDB2 was installed in the CSD. Any transaction that executes program DSN2COM1 should specify TWASIZE(*twasize*) on its transaction entry.

**DSN2054I DYNAMIC PLAN PROGRAM LINK
FAILED FOR TRANSACTION
'*transaction*'. EIBRESP WAS '*eibresp*'.**

Explanation: The attachment facility was unable to link to the dynamic plan exit program specified in DSNCRCT. The reason code provided by CICS in the EIBRESP field of the EIB is given in this message.

System Action: The transaction is abended with a DSNCRCT abend.

User Response: Look up the *eibresp* value in *CICS Transaction Server for z/OS Application Programming Reference*. This value was returned from CICS after the attachment facility attempted to link to the dynamic plan exit. Take appropriate action based on the *eibresp*. For example, if *eibresp* was PGMIDERR, check your RCT entry for transaction *transaction* to ensure that the dynamic plan exit program name (PLNPGME or PLNPGMI) is the name of a valid program known to CICS.

**DSN2055I SINGLE PHASE COMMIT FAILED FOR
TRANSACTION '*transaction*'. EIBTASKN
WAS '*task number*'.**

Explanation: CICS requested a single phase commit from DB2, but DB2 was unable to comply.

System Action: The transaction is abended with a DSNCRCT abend.

User Response: Contact the IBM Support Center for assistance.

**DSN2056I *csect-name* CICS RELEASE *release* IS
DOWN LEVEL FOR THIS ATTACHMENT
FACILITY**

Explanation: The attachment facility that you are using requires a CICS release later than Version 3 Release 3. You are using CICS Version 3 Release 3 or an earlier release. For this release of CICS, you must use the attachment facility shipped with DB2.

System Action: The attachment facility does not initialize.

User Response: Ensure that the CSD definition of the DSNCRCT transaction specifies program DSNCCOM1. If you are initializing the attachment facility using CICS program list table (PLT) processing, ensure that your CICS PLTPI table uses program DSNCCOM0 to initialize the attach.

**DSN2059I *csect-name* CICS ATTACHMENT
FACILITY MISMATCH WITH RESOURCE
CONTROL TABLE *rct-name***

Explanation: The wrong macro library was used to assemble DSN2CT, the resource control table.

There are two versions of the CICS attachment facility. The version shipped with DB2 requires CICS Version 3 Release 3 or an earlier release; the one shipped with CICS requires a CICS release later than Version 3 Release 3. This error message indicates CICS is using the attachment facility shipped with CICS, but the RCT was assembled using the DB2 macro libraries.

System Action: The CICS attachment facility initialization terminates.

User Response: Reassemble DSN2CT using the DSNCRCT macro shipped in the CICS macro libraries.

**DSN2060I *csect-name* INITPARM IS IGNORED
BECAUSE FORMAT IS INVALID.**

Explanation: The DSN2STRT INITPARM specified on the CICS initialization job is incorrect. The format of the INITPARM should be:

```
INITPARM=(DSN2STRT='xx,yyyy')
```

where xx is the suffix of the RCT and yyyy is the DB2 subsystem id. The RCT suffix cannot be greater than 2 characters, and the subsystem ID cannot be greater than 4 characters.

To specify an RCT suffix only, use the format:

```
INITPARM=(DSN2STRT='xx')
```

To specify a subsystem ID override only, use the format:

```
INITPARM=(DSN2STRT=' ,yyyy')
```

System Action: The attachment facility attempts to initialize with the subsystem ID specified in the DSNCRCT STRT command. If no subsystem ID is provided there, it attempts to initialize with the subsystem ID specified in the resource control table.

User Response: If you want to override the subsystem ID, restart the attachment facility using the DSNCRCT STRT command with the correct SSID. Alternatively, you can correct the DSN2STRT INITPARM and reinitialize CICS.

DSN2061I *csect-name* **INITPARM IS INVALID. ATTACHMENT FACILITY NOT STARTED.**

Explanation: No resource control table suffix was specified on the DSN2STRT command, and the format of the DSN2STRT INITPARM on the CICS initialization job is incorrect. The format of the INITPARM should be:

```
INITPARM=(DSN2STRT='xx,yyyy')
```

where xx is the suffix of the RCT and yyyy is the DB2 subsystem id. The RCT suffix cannot be greater than 2 characters, and the subsystem ID cannot be greater than 4 characters.

To specify an RCT suffix only, use the format:

```
INITPARM=(DSN2STRT='xx')
```

To specify a subsystem ID override only, use the format:

```
INITPARM=(DSN2STRT=',yyyy')
```

System Action: The attachment facility does not initialize.

User Response: To start the attachment facility, use the DSN2STRT command and specify a resource control table suffix on the command. Alternatively, you can correct the DSN2STRT INITPARM and reinitialize CICS.

DSN2063I *csect-name* **NOT AUTHORIZED TO START TRANSACTION *transaction*. ATTACHMENT FACILITY NOT STARTED**

Explanation: The user was not authorized to start transaction *transaction*.

The CICS-DB2 attachment facility starts *transaction* during initialization. Before it starts *transaction*, it checks external security (such as RACF) using CICS's QUERY SECURITY command. When CICS returns the value NOTREADABLE for *transaction*, the attachment facility produces this message.

System Action: The attachment facility does not initialize.

System Programmer Response: Identify the authorization ID of the user who started the attachment facility. Use your external security product to authorize that user to start *transaction*.

DSN2064I *csect-name transaction* **ABENDED. ATTACHMENT FACILITY IS TERMINATING.**

Explanation: The CICS-DB2 transaction *transaction* abended.

System Action: The CICS-DB2 attachment facility terminates.

System Programmer Response: Identify the cause of

the abend, correct it if necessary, and restart the attachment facility.

DSN2065I *csect-name* **INVALID LENGTH. DATA NOT DISPLAYABLE.**

Explanation: The module running under the CICS Execution Diagnostic Facility (EDF) attempted to display an input or output variable that had an incorrect length indicator.

System Action: EDF processing continues, but the value of the variable is not displayed.

DSN2070I *csect* **ROLLBACK FAILED FOR TRANSACTION *transaction* EIBRESP2 = X'eibresp2'**

Explanation: The attachment facility was unable to issue a CICS ROLLBACK. The reason code provided by CICS in the EIBRESP2 field of the EIB is shown in *eibresp2*.

System Action: The transaction is abended with a DSN2070I.

System Programmer Response: Look up the *eibresp2* value in CICS Transaction Server for z/OS Application Programming Reference. This value was returned from CICS after the attachment facility attempted a ROLLBACK requested by the ROLBE=YES option.

DSN2700I *DSN2SAMG message-id* **HAS BEEN ISSUED**

Explanation: This message is issued only if the requested message was not found in the message directory (DSN2MSGT).

System Action: The system proceeds as though the requested message was issued.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to this manual for the message text.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN2901I **UNRECOVERABLE IOERROR IN PROGRAM DSN2COM1. THE ATTACHMENT FACILITY WILL SHUTDOWN.**

Explanation: An attempt to retrieve data stored for program DSN2COM1 failed when CICS returned an exceptional condition of IOERR (EIBRESP = X'11').

System Action: The DB2-CICS attachment facility is shutdown.

Operator Response: Notify the system programmer.

System Programmer Response: An IOERR occurs if an input or output error occurs during a RETRIEVE operation. Examine the CICS auxiliary trace records and the CICS system log to determine the cause of the IOERR.

Chapter 27. DSN3... messages

DSN3001I *csect-name* ABNORMAL DISCONNECT FROM SUBSYSTEM INTERFACE

Explanation: This message indicates that '*csect-name*' detected that an online routine was still supporting SSI calls (IEFSSREQ) even though DB2 was nearly done terminating or no longer executing. This occurs with '*csect-name*' DSN3RS0X when the service address space has reached end-of-memory and neither normal termination nor online error recovery routines have successfully completed termination of the DB2 subsystem. This occurs with '*csect-name*' DSN3SSTM when this condition is discovered during online termination.

System Action: The connection is terminated. All IEFSSREQ requests are handled by the DB2 ERLY code until DB2 is restarted.

Problem Determination: An SVC dump is requested. This SVC dump and associated SYS1.LOGREC entries provide information to determine which resource managers had not removed their support of particular SSI function codes.

For dumps requested by DSN3RS0X, all pertinent control blocks and stack storage are dumped. The primary control block of interest is the SSVT for DB2.

For DSN3SSTM, the DB2 'standard dump' facility is used to dump the information necessary for problem diagnosis. The primary control blocks of interest are the 'active' CONN blocks.

DSN3002I RECOVERY INCOMPLETE FOR *connection-name*

Explanation: At least one DB2 unit of recovery (UR), related to an identified subsystem ('*connection-name*'), is still 'indoubt' after restart synchronization has taken place. ('Indoubt' URs are those for which commit has been voted by DB2 but which have not been acknowledged by '*connection-name*'.)

This message may appear if the '*connection-name*' subsystem has begun to do new work before having resolved all indoubt URs. The '*connection-name*' subsystem may be in the process of resolving the indoubt URs.

System Action: Resources held (locked) by these 'indoubt' URs are unavailable to any other work units until their status is resolved.

System Programmer Response: The system programmer and/or system administrator must determine the correct recovery action to resolve the 'indoubt' situations. This involves either 'ensure-commit' or 'backout' decisions for all 'indoubt' URs.

The -DISPLAY THREAD command should be used to

see the URs still indoubt. It may show that all indoubt URs have already been resolved. The -RECOVER INDOUBT command should be used, either from an MVS console or through an attachment facility, to resolve the indoubt URs and to release the resources they hold.

Problem Determination: This error is probably caused by a cold start after an abnormal termination of either subsystem or by offline alterations of the logs of either subsystem.

DSN3004I DESCRIPTOR GET FAILURE RC=*X* xxxxxxxx, REASON=*X* xxxxxxxx

Explanation: The parameter list required to create the DB2 agents under which IEFSSREQ calls are processed could not be obtained from the subsystem support subcomponent directory of internal parameters (DSN3DIR1). The RC indicates the return code received from the system parameter manager and REASON indicates the reason code (from register 0).

The return code is always 4 when this message is presented, indicating that the IEFSSREQ descriptor was not found in the subsystem support subcomponent directory. This is a system error and results in termination of the DB2 subsystem. The reason code is always 0.

System Action: Subsystem initialization is discontinued. Termination occurs.

System Programmer Response: Repair the master directory (DSNZPARM) and/or the DB2 program libraries, and restart the DB2 subsystem.

Problem Determination: If the problem persists, use any dumps and the console log to diagnose the problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN3006I *xxxx* SSI FUNCTION WAS ALREADY ACTIVE WHEN ACTIVATE WAS ATTEMPTED

Explanation: An initialization sequence error has occurred. The subsystem support for SSI services resource manager (SSSS) has discovered during its initialization that another resource manager ('*xxxx*') has already activated the EOM or FEOT SSI call by calling DSN3AC0X. If this occurs, the error is a serious one.

System Action: Subsystem initialization is discontinued. DB2 termination occurs.

System Programmer Response: Ensure that all maintenance has been applied to the DB2 program libraries, and then restart the DB2 subsystem.

Problem Determination: If the problem persists, use any dumps and the console log to diagnose the problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN3007I xxxx SSI FUNCTION WAS ALREADY INACTIVE WHEN DEACTIVATE WAS ATTEMPTED

Explanation: A termination sequence error has occurred. The subsystem support for SSI services resource manager (SSSS) has discovered during its termination that another resource manager ('xxxx') has already deactivated the EOM or FEOT SSI call by calling DSN3AC0X. If this occurs, the error is a serious one.

System Action: Termination continues.

System Programmer Response: Ensure that all maintenance has been applied to the DB2 program libraries.

Problem Determination: If the problem persists, use any dumps and the console log to diagnose the problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

DSN3008I csect-name ABNORMAL DISCONNECT FOR PROGRAM REQUEST HANDLER(S)

Explanation: This message indicates that 'csect-name' has discovered that one or more resource managers are still supporting application program calls through their program request handler, even though DB2 was almost done terminating or was no longer executing. This occurs when the system services address space has gone to end of memory and neither normal termination nor online error recovery routines have successfully completed termination of the DB2 subsystem.

System Action: The program request handler (PRH) connection is terminated. All application program support requests are rejected with an indication that DB2 is not up.

System Programmer Response: See the Problem Determination section of this message.

Problem Determination: An SVC dump is requested. This SVC dump and associated SYS1.LOGREC entries provide information to determine which resource managers were still supporting application program support calls. All pertinent control blocks and stack storage are dumped. The primary control block of interest is the program request handler block (PRHB).

DSN3010I csect-name PARTICIPANT RRS IS COLD STARTING AND HAS LOST ITS LOG. OTHER RECOVERABLE RESOURCE MANAGERS MIGHT HAVE INDOUBT UNITS OF RECOVERY.

Explanation: DB2 has coordinator responsibility for indoubt units of recovery and RRS has a participant role in the unit of recovery. RRS has cold started and has lost knowledge of indoubt units of recovery. There might be damage at RRS Recoverable Resource Managers that also participated in the unit of recovery.

System Action: Processing continues.

System Programmer Response: Contact the database administrator.

Database Administrator Action: DB2 is the coordinator for one or more indoubt units of recovery at other RRS recoverable resource managers. RRS has lost all knowledge of these units of recovery. The participant RRS Recoverable Resource Managers might still have indoubt units of recovery. DB2 has no knowledge of other RRS Recoverable Resource Manager except for the RRS unit of recover ID (URID) that identifies such a unit of recovery. Subsequent DSN3017I, DSN3018I or DSN3019I messages describe the status of each unit of recovery and contain the RRS URID for each.

DSN3011I csect-name COORDINATOR RRS IS COLD STARTING AND HAS LOST ITS LOG. INDOUBT DB2 THREADS NEED MANUAL RESOLUTION.

Explanation: DB2 has participant responsibility for indoubt threads. RRS, the commit coordinator, has informed DB2 that it lost all knowledge of DB2 indoubt threads. The indoubt threads at this DB2 must be manually resolved with the RECOVER INDOUBT command.

System Action: Processing continues.

System Programmer Response: Contact the database administrator.

Database Administrator Action: DB2 is a participant with one or more indoubt threads. The coordinator is RRS. RRS has lost knowledge of the indoubt DB2 threads. A list of indoubt threads where RRS is the coordinator can be displayed using the DISPLAY THREAD command for indoubt type threads by specifying RRSAF as the connection name. A DSNV408I message with coordinator = RRSAF identifies a thread of this type. The DSNV449I message in the DISPLAY THREAD report that follows contains the RRS unit of recovery ID (URID) that identifies the RRS unit of recovery in the NID field.

The heuristic decision (that is, to commit or abort the logical unit of work) should be coordinated with any other participant RRS Recoverable Resource Managers.

The existence of other participants might not be easy to determine. The information might be available in the MVS/RRS recovery log even though information has been lost.

At this DB2, all indoubt threads coordinated by the RRS must be resolved with the RECOVER INDOUBT command. Locked data remains unavailable until resolution. Threads that were already resolved with this command are discarded. Threads not yet resolved are discarded after resolution with the command.

The commit or abort decision provided using the RECOVER INDOUBT command for a logical unit of work are propagated to all downstream participants, if any.

DSN3012I *csect-name* **DB2 WAS RESTARTED ON THE WRONG SYSTEM AND CANNOT CONNECT TO RRS. THERE ARE UNRESOLVED UNITS OF RECOVERY WHERE DB2 IS THE COORDINATOR.**

Explanation: DB2 is the commit coordinator for one or more indoubt units of recovery. DB2 is unable to connect to RRS to resolve these indoubt units of recovery.

System Action: Processing continues.

Operator Response: Use the RRS IPCS interface to determine the correct system and restart DB2 on that system.

DSN3013I *csect-name* **DB2 WAS RESTARTED ON THE WRONG SYSTEM AND CANNOT CONNECT TO RRS. THERE ARE UNRESOLVED UNITS OF RECOVERY WHERE DB2 IS A PARTICIPANT.**

Explanation: DB2 has one or more indoubt threads and is unable to connect to RRS to resolve these indoubt units of recovery.

System Action: Processing continues.

Operator Response: Use the RRS IPCS interface to determine the correct system and restart DB2 on that system.

DSN3014I *csect-name* **DB2 HAS NO KNOWLEDGE OF RRS URID=*rrs_urid*. THE RRS UR IS INDOUBT. THE DB2 URID RECORDED BY RRS=*db2_urid*.**

Explanation: DB2 is restarting with RRS where DB2 is a participant and RRS is the coordinator. RRS has a unit of recovery that DB2 should be a participant in, but DB2 has no knowledge of the RRS unit of recovery. The RRS unit of recovery ID is '*rrs_urid*'. RRS has recorded the DB2 unit of recovery ID as '*db2_urid*'.

System Action: Restart with RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: This message might indicate a DB2 or RRS problem, or it might be produced normally because one of the following prior actions:

- A DB2 conditional restart was performed that resulted in the loss of part or all of the DB2 log. This conditional restart might have happened at any time in the past.
- The DB2 RECOVER INDOUBT command was used to resolve the DB2 unit of recovery with URID '*db2_urid*'.

If either of these occurred, the message can be ignored. If neither occurred, there might be a DB2 or an RRS problem. If the '*db2_urid*' appears to be a valid log RBA, use the DSN1LOGP utility with the SUMMARY option and URID options using the '*db2-urid*' value. If DSN1LOGP finds the '*db2-urid*', the disposition will indicate whether the DB2 UR was committed or aborted (rolled back). If possible, use the RRS ISPF interface to commit or abort the RRS URID to avoid heuristic damage.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 6, 33, 72.

DSN3015I *csect-name* **DB2 HAS NO KNOWLEDGE OF RRS URID=*rrs_urid*. THE RRS UR IS INDOUBT. THE DB2 URID RECORDED BY RRS=*db2_urid*.**

Explanation: DB2 is restarting with RRS where DB2 is the coordinator and RRS is the participant. RRS has a unit of recovery that DB2 should be the coordinator of, but DB2 has no knowledge of the RRS unit of recovery. The RRS unit of recovery ID is '*rrs_urid*'. RRS has recorded the DB2 unit of recovery ID as '*db2_urid*'.

System Action: Restart with RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: This message might indicate a DB2 or RRS problem, or it might be produced normally because a DB2 conditional restart was performed that resulted in the loss of part or all of the DB2 log. This conditional restart might have happened at any time in the past.

If the '*db2_urid*' appears to be a valid log RBA, use the DSN1LOGP utility with the SUMMARY option and URID options using the '*db2-urid*' value. If DSN1LOGP finds the '*db2-urid*', the disposition will indicate whether the DB2 UR was committed or aborted (rolled back). Use the RRS ISPF interface to commit or abort the RRS

DSN3016I • DSN3019I

URID to avoid heuristic damage.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 6, 33, 72.

DSN3016I *csect-name* RRS HAS LOST DATA FROM ITS LOG.

Explanation: DB2 is restarting with RRS and RRS has lost some portion of its log.

System Action: Restart with RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: DB2 might not be able to resolve indoubt Units of Recovery successfully with RRS because of the loss of RRS log data. This message might be followed by one or more of the following messages: DSN3017I, DSN3018I, DSN3019I, DSN3020I, DSN3021I, DSN3022I and DSN3023I.

DSN3017I *csect-name* RRS HAS NO KNOWLEDGE OF DB2 URID=*db2_urid*. THE DB2 UR IS INDOUBT. THE RRS URID RECORDED BY DB2=*rrs_urid*.

Explanation: DB2 is restarting with RRS where DB2 is the coordinator and RRS is a participant. DB2 has a unit of recovery that RRS should be a participant in, but RRS has no knowledge of the DB2 unit of recovery. The DB2 unit of recovery ID is '*db2_urid*'. DB2 has recorded the RRS unit of recovery ID as '*rrs_urid*'.

System Action: Restart with RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: This message might indicate a DB2 or RRS problem, or it might be produced normally because of one of the following:

- An RRS cold start was performed that resulted in the loss of the RRS log. In this case, message DSN3010I should have been produced.
- RRS might have had a partial loss of log data during restart. In this case, message DSN3016I should have been produced.
- The RRS ISPF interface might have been used to heuristically commit or roll back the UR.

If any of the above are true, the message can be ignored. If not, there might be a DB2 or an RRS problem.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and*

Reference for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 6, 33, 72.

DSN3018I *csect-name* RRS HAS NO KNOWLEDGE OF DB2 URID=*db2_urid*. THE DB2 UR WAS COMMITTED. THE RRS URID RECORDED BY DB2=*rrs_urid*.

Explanation: DB2 is restarting with RRS where DB2 is the coordinator and RRS is a participant. DB2 has a unit of recovery that RRS should be a participant in, but RRS has no knowledge of the DB2 unit of recovery. The DB2 unit of recovery ID is '*db2_urid*'. DB2 has recorded the RRS unit of recovery ID as '*rrs_urid*'.

System Action: Restart with RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: This message might indicate a DB2 or RRS problem, or it might be produced normally because of one of the following:

- An RRS cold start was performed that resulted in the loss of the RRS log. In this case, message DSN3010I should have been produced.
- RRS might have had a partial loss of log data during restart. In this case, message DSN3016I should have been produced.
- The RRS ISPF interface might have been used to heuristically commit or roll back the UR.

If any of the above are true, the message can be ignored. If not, there might be a DB2 or an RRS problem.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 6, 33, 72.

DSN3019I *csect-name* RRS HAS NO KNOWLEDGE OF DB2 URID=*db2_urid*. THE DB2 UR WAS ROLLED BACK. THE RRS URID RECORDED BY DB2=*rrs_urid*.

Explanation: DB2 is restarting with RRS where DB2 is the coordinator and RRS is a participant. DB2 has a unit of recovery that RRS should be a participant in, but RRS has no knowledge of the DB2 unit of recovery. The DB2 unit of recovery ID is '*db2_urid*'. DB2 has recorded the RRS unit of recovery ID as '*rrs_urid*'.

System Action: Restart with RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: This message might indicate a DB2 or RRS problem, or it might be produced normally because of one of the following:

- An RRS cold start was performed that resulted in the loss of the RRS log. In this case, message DSN3010I should have been produced.
- RRS might have had a partial loss of log data during restart. In this case, message DSN3016I should have been produced.
- The RRS ISPF interface might have been used to heuristically commit or roll back the UR.

If any of the above are true, the message can be ignored. If not, there might be a DB2 or an RRS problem.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 6, 33, 72.

DSN3020I *csect-name* **POSSIBLE HEURISTIC DAMAGE. RRS HAS COMMITTED THE UR WITH RRS URID=*rrs_urid*. THE DB2 UR WITH DB2 URID=*db2_urid* IS INDOUBT.**

Explanation: DB2 is restarting with RRS and has a unit of recovery (UR) DB2 URID=*db2_urid* that is indoubt. DB2 is the commit coordinator for the UR and RRS is a participant. RRS has committed the same UR. The RRS URID=*rrs_urid*.

System Action: Restart with RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: If possible, insure that the DB2 UR is resolved to commit. If this is done, there will be no heuristic damage. If the DB2 UR is resolved to abort, heuristic damage will have occurred since RRS committed the same UR.

DSN3021I *csect-name* **POSSIBLE HEURISTIC DAMAGE. RRS HAS ROLLED BACK THE UR WITH RRS. URID=*rrs_urid*. THE DB2 UR WITH DB2 URID=*db2_urid* IS INDOUBT.**

Explanation: DB2 is restarting with RRS and has a unit of recovery (UR) DB2 URID=*db2_urid* that is indoubt. DB2 is the commit coordinator for the UR and RRS is a participant. RRS has rolled back the same UR. The RRS URID=*rrs_urid*.

System Action: Restart with RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: If possible, insure that the DB2 UR is resolved to abort. If this is done, there will be no heuristic damage. If the DB2 UR is resolved to commit, heuristic damage will have occurred since RRS rolled back the same UR.

DSN3022I *csect-name* **HEURISTIC DAMAGE HAS OCCURRED. RRS HAS COMMITTED THE UR WITH RRS URID=*rrs_urid*, AND DB2 HAS ROLLED BACK THE SAME UR. THE DB2 URID=*db2_urid***

Explanation: DB2 is restarting with RRS and has a unit of recovery (UR) with DB2 URID=*db2_urid* that was rolled back. DB2 is the commit coordinator for the UR and RRS is a participant. RRS has committed the same UR. The RRS URID=*rrs_urid*.

System Action: Restart with RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: Heuristic damage has occurred since DB2 rolled back the UR and RRS has committed the same UR. Correct the damage. This is not an easy task. Knowledge of the application is required to determine which Recoverable Resource Managers are involved in the UR. Since the time of the heuristic action, the data that was updated might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. Tools available are:

- The RRS ISPF functions can provide assistance in determining the set of resource managers involved and what action they took.
- The DB2 DSN1LOGP utility provides a summary report that identifies the table spaces modified by the unit of recovery.

Contact your IBM Support Center for further assistance.

DSN3023I *csect-name* **HEURISTIC DAMAGE HAS OCCURRED. RRS HAS ROLLED BACK THE UR WITH RRS URID=*rrs_urid*, AND DB2 HAS COMMITTED THE SAME UR. THE DB2 URID=*db2_urid***

Explanation: DB2 is restarting with RRS and has a unit of recovery (UR) with DB2 URID=*db2_urid* that was committed. DB2 is the commit coordinator for the UR and RRS is a participant. RRS has rolled back the same UR. The RRS URID=*rrs_urid*.

System Action: Restart with RRS continues.

Operator Response: Notify the database administrator.

Database Administrator Action: Heuristic damage has occurred since DB2 committed the UR and RRS has rolled back the same UR. Correct the damage. This is not an easy task. Knowledge of the application is required to determine which Recoverable Resource Managers are involved in the UR. Since the time of the heuristic action, the data that was updated might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. Tools available are:

- The RRS ISPF functions can provide assistance in determining the set of resource managers involved and what action they took.
- The DB2 DSN1LOGP utility provides a summary report that identifies the table spaces modified by the unit of recovery.

Contact your IBM Support Center for further assistance.

DSN3024I *csect_name* **HEURISTIC DAMAGE HAS OCCURRED. COORDINATOR DB2 HAS COMMITTED THE UR WITH DB2 URID=*db2_urid*, AND RRS HAS INDICATED THAT THE OUTCOME WAS MIXED. THE RRS URID=*rrs_urid*.**

Explanation: DB2 is the commit coordinator and RRS is a participant. DB2 committed the UR with URID = *db2_urid* and RRS has indicated that one or more Recoverable Resource Managers that participated in the RRS UR with URID = *rrs_urid* has rolled back the same UR.

System Action: Processing continues.

Operator Response: Notify the database administrator.

Database Administrator Action: Heuristic damage has occurred since DB2 committed the UR and at least one RRS Recoverable Resource manager has rolled back the same UR. Correct the damage. This is not an easy task. Knowledge of the application is required to determine which Recoverable Resource Managers are involved in the UR. Since the time of the heuristic action, the data that was updated might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. Tools available are:

- The RRS ISPF functions can provide assistance in determining the set of resource managers involved and what action they took.
- The DB2 DSN1LOGP utility provides a summary report that identifies the table spaces modified by the unit of recovery.

Contact your IBM Support Center for further assistance.

DSN3025I *csect_name* **HEURISTIC DAMAGE HAS OCCURRED. COORDINATOR DB2 HAS ROLLED BACK THE UR WITH DB2 URID=*db2_urid*, AND RRS HAS INDICATED THE OUTCOME WAS MIXED. THE RRS URID=*rrs_urid*.**

Explanation: DB2 is the commit coordinator and RRS is a participant. DB2 rolled back the UR with URID = *db2_urid* and RRS has indicated that one or more Recoverable Resource Managers that participated in the RRS UR with URID = *rrs_urid* has committed the same UR.

System Action: Processing continues.

Operator Response: Notify the database administrator.

Database Administrator Action: Heuristic damage has occurred since DB2 rolled back the UR and at least one RRS Recoverable Resource manager has committed the same UR. Correct the damage. This is not an easy task. Knowledge of the application is required to determine which Recoverable Resource Managers are involved in the UR. Since the time of the heuristic action, the data that was updated might have been used by many applications - read and/or write. Correcting the damage might involve reversing the effects of these applications as well. Tools available are:

- The RRS ISPF functions can provide assistance in determining the set of resource managers involved and what action they took.
- The DB2 DSN1LOGP utility provides a summary report that identifies the table spaces modified by the unit of recovery.

Contact your IBM Support Center for further assistance.

DSN3026I *csect_name* **POSSIBLE HEURISTIC DAMAGE. COORDINATOR DB2 HAS COMMITTED THE UR WITH DB2 URID=*db2_urid*, AND RRS HAS INDICATED THAT THE OUTCOME IS PENDING. THE RRS URID=*rrs_urid*.**

Explanation: DB2 is the commit coordinator for the DB2 UR with URID=*db2_urid* and RRS is a participant. RRS has also committed the UR but has indicated that at least one RRS Recoverable Resource manager has not completed commit processing for the RRS UR with URID=*rrs_urid*.

System Action: Processing continues.

Operator Response: Notify the database administrator.

Database Administrator Action: If possible, insure that the RRS Recoverable Resource Manager commits the RRS UR. If this is done, there will be no heuristic damage. If the RRS UR is rolled back by the RRS Recoverable Resource manager, heuristic damage will

have occurred since DB2 committed the same UR.

DSN3027I *csect-name* **POSSIBLE HEURISTIC DAMAGE. COORDINATOR DB2 HAS ROLLED BACK THE UR WITH DB2 URID=*db2_urid*, AND RRS HAS INDICATED THAT THE OUTCOME IS PENDING. THE RRS URID=*rrs_urid*.**

Explanation: DB2 is the commit coordinator for the DB2 UR with URID=*db2_urid* and RRS is a participant. RRS has also rolled back the UR but has indicated that at least one RRS Recoverable Resource manager has not completed roll back processing for the RRS UR with URID=*rrs_urid*

System Action: Processing continues.

Operator Response: Notify the database administrator.

Database Administrator Action: If possible, insure that the RRS Recoverable Resource Manager rolls back the RRS UR. If this is done, there will be no heuristic damage. If the RRS UR is committed by the RRS Recoverable Resource manager, heuristic damage will have occurred since DB2 rolled back the same UR.

DSN3100I *csect-name* **SUBSYSTEM *ssnm* READY FOR START COMMAND**

Explanation: This message is issued by CSECT DSN3RRSR when DB2 subsystem initialization is complete. The '*ssnm*' in the message is the name of the subsystem that issued the message. This occurs during MVS IPL processing. The message is also issued by CSECT DSN3EC0X after termination of the previous execution of DB2 is complete. Message DSN3104I is also issued during this processing.

Operator Response: Issue the -START command when DB2 execution is desired.

DSN3101I *csect-name* **INVALID EARLY PROCESSING MODULE NAME IN PARMLIB RECORD. *ssnm* IS NOT AVAILABLE**

Explanation: CSECT DSN3UR00 has discovered that a parameter passed to DB2 subsystem initialization is in error. Either the Early processing load module name is not between 1 and 8 characters long, or there are syntax errors in the parameter string. The entire parameter string must be between 3 and 10 characters long, and the next to the last character must be a ','. The parameters were obtained from the parameter fields of a record defining a DB2 subsystem in member IEFSSNxx of SYS1.PARMLIB.

The subsystem recognition character is not inserted in this message as it is not yet known. '*ssnm*' is the name of the DB2 subsystem undergoing IPL-time initialization.

System Action: The DB2 subsystem with the

indicated name is not available for this IPL of MVS.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the parameter fields in the record of SYS1.PARMLIB member IEFSSNxx, and re-IPL MVS. Refer to Part 2 of *DB2 Installation Guide* for the format of an IEFSSNxx record which defines a DB2 subsystem.

DSN3102I *csect-name* **INVALID SUBSYSTEM RECOGNITION CHARACTER IN PARMLIB RECORD. *ssnm* IS NOT AVAILABLE**

Explanation: CSECT DSN3UR00 detected that the subsystem recognition character is invalid; it must be nonblank. The subsystem recognition character is the last field of the parameter string passed to DB2 IPL initialization. It is obtained from a record for the named subsystem in member IEFSSNxx of SYS1.PARMLIB.

The subsystem recognition character is not inserted in this message as it cannot be determined. '*ssnm*' is the name of the DB2 subsystem undergoing IPL-time initialization.

System Action: The DB2 subsystem with the indicated name is not available for this IPL of MVS.

Operator Response: Notify the system programmer. Correct the parameter fields in the SYS1.PARMLIB record of member IEFSSNxx, and re-IPL MVS. Refer to Part 2 of *DB2 Installation Guide* for the format of an IEFSSNxx record which defines a DB2 subsystem.

DSN3103I *csect-name* - **UNABLE TO LOAD EARLY PROCESSING MODULE SPECIFIED IN PARMLIB RECORD. *ssnm* IS NOT AVAILABLE**

Explanation: CSECT DSN3UR00 is unable to load the early processing load module named in the first parameter passed to DB2 subsystem IPL initialization. '*ssnm*' is the name of the DB2 subsystem undergoing IPL-time initialization.

Either the load module name was specified incorrectly or the load module does not reside in a library included in the MVS linklist.

System Action: DSN3UR00 abends with code X'04E' and reason code X'00F30103'. The DB2 subsystem with the indicated name is not available for this IPL of MVS.

Operator Response: Notify the system programmer.

System Programmer Response: Identify the cause of the error. Either correct the early processing load module or take the necessary steps to include the module in a link-listed library. Re-IPL MVS. Refer to Part 2 of *DB2 Installation Guide* for the format of an IEFSSNxx record that defines a DB2 subsystem. Refer to the appropriate MVS publication for MVS linklist requirements.

Problem Determination: An entry is made to SYS1.LOGREC. No SVC dump is taken.

DSN3104I *csect-name* - **TERMINATION COMPLETE**

Explanation: This message indicates that a DB2 subsystem has terminated. The actual MVS termination of the DB2 address space(s) may have completed earlier. This message is presented for every termination, normal or abnormal.

Operator Response: Issue a DISPLAY ACTIVE command to see if MVS has completed termination processing of the address space(s).

DSN3105I *csect-name* - **UNABLE TO LOAD EARLY PROCESSING MODULE 'DSN3EPX' ssnm IS NOT AVAILABLE**

Explanation: CSECT DSN3UR00 is unable to load the early processing module DSN3EPX required for MVS. The name of the DB2 subsystem undergoing IPL-time initialization is 'ssnm'. Either the load module has been inadvertently deleted, or does not reside in a library included in the MVS linklist.

System Action: DSN3UR00 abends with code X'04E' and reason code X'00F30105'. DB2 subsystem 'ssnm' is not available for this IPL of MVS.

Operator Response: Notify the system programmer.

System Programmer Response: Identify the cause of the error. Either correct the early processing load module or take the necessary steps to include the module in a link-listed library. Re-IPL MVS.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An entry is made in SYS1.LOGREC. No SVC dump is taken. Refer to MVS linklist requirements in *MVS/ESA JES2 Initialization and Tuning Guide*.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

DSN3106I *csect-name* **SUBSYSTEM STOPPED. THIS COMMAND NOT PROCESSED:**
command-text

Explanation: A command has been received which cannot be processed due to one of the following:

- The DB2 subsystem has not been started.
- The command was queued for processing while DB2 was starting, but startup terminated with an error.
- DB2 terminated before the command could be processed.

System Action: The command is not processed.

Operator Response: Start the DB2 subsystem, then reenter the command.

DSN3107I *csect-name* **COMMAND REJECTED. REQUESTER NOT AUTHORIZED**

Explanation: CSECT DSN3EC0X has discovered that the source of the command was a console that does not have 'system' authority.

System Action: The command is not processed. This message is sent to the console that entered the command.

Operator Response: Enter the command from another console that has 'system' authority.

System Programmer Response: Verify that this console should be used for entering DB2 commands. If so, authorize it for 'system' commands by using MVS services.

DSN3108I *csect-name* **COMMAND REJECTED. COMMAND FACILITY PATH UNAVAILABLE**

Explanation: CSECT DSN3EC0X has discovered that the path from MVS consoles to the DB2 command processor is unavailable. It may still be possible to enter commands through one of the attachment facilities.

System Action: The command is not processed. This message is delivered to the console that entered the command.

System Programmer Response: The console command facility is available again the next time DB2 is started. If it is necessary to regain this facility immediately, DB2 should be canceled and restarted.

DSN3109I *csect-name* - **UNABLE TO OBTAIN SUBSYSTEM AFFINITY TABLE INDEX FOR SUBSYSTEM *ssnm*. IEFSSREQ RC = *nn***

Explanation: CSECT DSN3UR00 was unable to obtain a subsystem affinity table index for the named subsystem. MVS did not recognize the named subsystem name as a known subsystem. If this message is issued, a serious error has occurred in MVS or DB2.

In the message, 'nn' is the return code from the IEFSSREQ MVS service. 'ssnm' is the name of the DB2 subsystem undergoing IPL-time initialization.

System Action: DSN3UR00 abends with completion code X'04E' and reason code X'00F30104'. The DB2 subsystem with the indicated name is not available for this IPL of MVS.

Operator Response: Notify the system programmer.

System Programmer Response: Try to re-IPL. If the

problem persists, follow standard DB2 problem reporting procedures.

Problem Determination: A record is written to SYS1.LOGREC. No SVC dump is taken. Return codes from IEFSSREQ are documented under control block SSOB in the appropriate MVS publication.

DSN3111I *csect-name* **LOAD MODULE**
module-name **DOES NOT HAVE**
AMODE(31) ATTRIBUTE. *ssnm* IS NOT
AVAILABLE

Explanation: The DB2 program which establishes DB2 as an MVS subsystem during Master Scheduler initialization has determined that either its own load module or a load module loaded by it does not have the linkage editor attributes AMODE(31) and RMODE(ANY). Most DB2 load modules must be capable of running in the 31-bit addressing mode.

In the message, 'csect-name' is the name of the program detecting the error, 'module-name' is the name of the first load module found with an invalid AMODE attribute, and 'ssnm' is the name of the DB2 subsystem undergoing IPL-time initialization.

System Action: Program DSN3UR00 abends with a code of X'04E' and a reason code of X'00F30111'. The DB2 subsystem named 'ssnm' is not initialized. The subsystem will not be available until the error is corrected and MVS is re-IPLed.

Operator Response: Notify the system programmer of the failure.

System Programmer Response: Verify that all of the following were done:

- The installation and maintenance activities against DB2 were executed using SMP.
- The JCLIN for SMP included the correct AMODE and RMODE control statements.
- The appropriate Linkage Editor provided with the Data Facility Product (DFP) for the version of MVS being used was invoked by SMP for the link-edit steps.

Correct and rerun the procedure or JCL which caused the error. If necessary, REJECT all SMP APPLY steps which were executed incorrectly and rerun the rejected steps. Request a re-IPL of MVS.

Problem Determination: A record is written to SYS1.LOGREC. No SVC dump is taken.

The MVS service aid AMBLIST provides Linkage Editor module attributes in the summary section of the LISTLOAD function output.

DSN3112I *csect-name* **UNABLE TO REGISTER**
COMMAND PREFIX, CPF RETURN
CODE = *xyyy*. *ssnm* IS NOT AVAILABLE

Explanation: DB2 is unable to register the installation-specified command prefix with MVS. The command prefix is specified in the subsystem definition parameter. *xx* is the hexadecimal return code, and *yy* is the hexadecimal reason code from the CPF MVS service. Subsystem *ssnm* is not available.

System Action: This DB2 subsystem is not available.

System Programmer Response: Refer to the MVS documentation on the CPF macro service to determine the reason for the *xx* and *yy* codes. Ensure that the specified command prefix is not already registered, or is not a substring or superstring of an already registered command prefix. Use the MVS DISPLAY OPDATA command, if necessary, to see command prefixes registered with MVS.

DSN3113I *csect-name* **INVALID SUBSYSTEM**
DEFINITION PARAMETER IN PARMLIB
RECORD. *ssnm* IS NOT AVAILABLE.

Explanation: DB2 detected an error in the subsystem definition parameter, which is obtained from the IEFSSNxx member of SYS1.PARMLIB. Some possible causes for this error are:

- The early processing load module name is not between 1 and 8 characters long.
- The command prefix is not between 1 and 8 characters long.
- The command prefix scope is not 1 character long.
- The command prefix scope is not X, S, or M.
- The group attach name is not between 1 and 4 characters long.

The command prefix is not inserted into this message because it is unknown. The name of the subsystem attempting to initialize is *ssnm*.

System Action: The DB2 subsystem is not available.

System Programmer Response: Correct the subsystem definition parameter and re-IPL MVS. Refer to *DB2 Installation Guide* for the format of the subsystem definition parameter that defines a DB2 subsystem.

DSN3114I *csect-name* **GROUP ATTACH NAME IS**
NOT ALLOWED WITH THIS RELEASE
OF MVS. *ssnm* IS NOT AVAILABLE

Explanation: DB2 found an installation-specified group attachment name specified in the subsystem definition parameter, IEFSSNxx, but DB2 group attachment is not supported with this release of MVS. DB2's group attachment feature requires MVS/ESA SP4.2.2 or a later release. The DB2 subsystem *ssnm* is not available.

System Programmer Response: Delete the group attachment name in the subsystem definition parameter and re-IPL.

DSN3115I *csect-name* **UNABLE TO REGISTER GROUP ATTACH NAME, NAME/TOKEN RC = xx. ssnm IS NOT AVAILABLE**

Explanation: DB2 is unable to register the installation-specified group attach name with MVS. The group attach name is specified in the subsystem definition parameter. *xx* is the hexadecimal return code from the MVS Name/Token service. Subsystem *ssnm* is not available.

System Action: This DB2 subsystem is not available.

System Programmer Response: Refer to MVS documentation about the Name/Token macro service to determine the reason for the *xx* return codes.

DSN3116I *csect-name* **THE VERSION OF THE DB2 EARLY CODE IS INCOMPATIBLE WITH THIS VERSION OF MVS. ssnm IS NOT AVAILABLE**

Explanation: This version of DB2 early code requires MVS/ESA 4.2.0. Subsystem *ssnm* is not available.

System Programmer Response: The version of the DB2 early code that was loaded from the LINKLIST library is not compatible with the release of MVS that you are using. Change the concatenation order of the LINKLIST library so that a compatible release of DB2 early code is used.

DSN3201I **ABNORMAL EOT IN PROGRESS FOR USER=xxxxxxx CONNECTION-ID=yyyyyyy CORRELATION-ID=zzzzzzzzzz JOBNAME=aaaaaaa ASID=9999 TCB=99999999**

Explanation: Abnormal termination started for the agent with the values shown for USER, CONNECTION-ID, CORRELATION-ID, JOBNAME, ASID and TCB address. These values are the last known set of identifiers for the terminating agent.

The abnormal termination could be the result of a failure in the allied agent's address space or the result of an operator cancel command.

The value for the USER and/or CORRELATION-ID might be blank. If the terminating agent is connected to DB2 at the IDENTIFY level and was not previously signed on, or was not previously authorized to a plan at the time of the failure, then no CORRELATION-ID is associated with the agent. Otherwise, the values for the USER, CONNECTION-ID, CORRELATION-ID, JOBNAME and ASID are the last values established to DB2 for this connection. They might represent the current activity of the agent. The TCB value is the address of the TCB that is terminating. Previous DB2

work by this agent might have completed successfully. Correlation IDs beginning with '0nn', where nn is a number from 01 to 28, identify system agents.

System Action: The agent was previously queued to a System Services service task for termination processing. This message indicates that the agent was taken from the queue for processing. Any uncommitted database changes are rolled back.

User Response: Your job or TSO session cannot be canceled. The PA1 key has no effect in this circumstance. To avoid long waits when your application program is canceled or terminates abnormally, issue frequent commits.

System Programmer Response: See the Problem Determination section for this message. The MVS CANCEL and FORCE commands have no effect and should not be issued. DB2 should not be canceled. If an extensive rollback is in progress, the subsequent DB2 restart might take a very long time because of additional log activity.

Problem Determination: You can detect a deferred termination condition for a task by examining several indicators. Some or all of the following might be present:

- The allied address space might be swapped out and appear to be in a never-ending WAIT condition.
- The MVS commands CANCEL and FORCE appear to have no effect.
- The allied task holds an MVS-shared ENQ on resource SYSZDSN3.ERLYOLRHerly-block-address.
- During abnormal termination of the agent associated with the failing task, but before this message was written, the task's connection appears on the -DISPLAY THREAD output with a QD status. See message DSNV404I for the definition of this status code.
- This message, DSN3201I, is written to the MVS console after the agent is removed from the service task work queue when termination processing begins.
- During abnormal termination of the agent associated with the failing task, the task's connection appears on the -DISPLAY THREAD output with a D status. See message DSNV404I for the definition of this status code.

DSN3458I *csect-name* **MODULE *modname* MUST HAVE THE AMODE (31) ATTRIBUTE**

Explanation: An authorization exit load module was not link-edited with the 31-bit addressing mode (AMODE) attribute. Either load module DSN3@ATH or DSN3@SGN is specified by '*modname*'.

System Action: Subsystem startup is terminated.

System Programmer Response: Relink-edit the authorization exit module specifying the attributes AMODE(31), RMODE(ANY).

Problem Determination: Check the load module attributes used for the link-edit.

DSN3580I CONNECTION FOR [EOM | FEOT | IDEN] GAVE RC=X xxxxxxxx, REASON=X xxxxxxxx

Explanation: A nonzero return code has been returned to DSN3AMI2 from the SSSS connect to subsystem interface call. The variables in the message indicate which SSI call is involved and the actual return and reason codes associated with it.

System Action: The current task (TCB) is abended with a system completion code of X'04E' and with an abend reason code of '00F30580' The DB2 subsystem terminates.

Operator Response: Notify the system programmer.

System Programmer Response: Restart the DB2 subsystem.

Problem Determination: The trace table and stack storage associated with the EB in register 6 must be examined to locate the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

DSN3581I csect-name SAF service FAILED WITH SAF RETURN CODE = saf-retc, RACF RETURN CODE = racf-retc, AND RACF REASON CODE = racf-reac. DB2 REASON CODE = db2-reac

Explanation: DB2 invoked the specified SAF (Security Authorization Facility) service which failed with the following codes:

Variable

Definition

csect The CSECT name of the DB2 module that issued the message.

service The name of the service that failed.

saf-retc The SAF return code.

racf-retc The RACF return code.

db2-reac The DB2-assigned reason code for the failure.
DB2 associates the failure with a DB2 reason code which may appear in other messages associated with this failure.

System Action: The call fails. Other messages associated with this feature may follow.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: The action to take

depends on the service being used.

- R_ticketserv
DB2 requests this service to parse a Kerberos ticket received from a remote client. Refer to OS/390 Security Server (RACF) Callable services for an explanation of the error.

DB2 uses the SAF R_ticketserv service to parse a Kerberos ticket that was received from a remote client. Refer to OS/390 SecureWay Security Server RACF Callable Services for an explanation of the error. A SAF and RACF return code of 8 and 16 indicate a failure from the Network Authentication Privacy Service (Kerberos) when parsing the ticket in which case the RACF reason code contains a status code from the Network Authentication Privacy Service. These status codes are documented in the OS/390 SecureWaySecurity Server Network Authentication and Privacy Service Administration manual. Additional information for some of the more common status codes and how they relate to DB2 follows:

96C73A07

One possibility is that you must associate the ssnmDIST started task user ID with a principal name and the client system must use this principal name in the Kerberos target principal.

Note: DB2 Connect client systems must catalog a DB2 for OS/390 database with "AUTHENTICATION KERBEROS TARGET PRINCIPAL principal_name". Assume that SYSDSP is the user ID associated with the ssnmDIST started task. A principal, say SYSDSPp, must be associated to the SYSDSP user ID by a RACF ALTUSER command. Further, the SYSDSPp principal name must appear in the target principal name of the DB2 Connect database configuration for the DB2 for OS/390 database.

- R_ticketserv(principal name)
DB2 uses the SAF R_usermap service to determine the user ID associated with a Kerberos ticket received from a remote client. Refer to OS/390 SecureWay Security Server RACF Callable Services for an explanation of the error. The principal name obtained from the ticket is included in parenthesis to assist the user in determining the cause of the problem. Either the client system is using an invalid principal name, or a principal name to user ID association has not been defined to RACF.

Principals authenticated on the local OS/390 realm must have a mapping that associates the local principal name to a local RACF user ID. This

DSN3581I

association can be made by using the RACF ADDUSER or ALTUSER commands with the KERBNAME parameter.

Principals authenticated on a foreign realm must have a mapping that associates the foreign fully qualified principal name to a local RACF user ID. This association can be made by using the RACF RDEFINE or RALTER commands with the KERBLINK parameter.

- R_usermap

DB2 requests this service to determine the user ID associated with a Kerberos ticket received from a remote client. Refer to *OS/390 Security Server (RACF) Callable services* for an explanation of the error.

Chapter 28. DSN7... Messages

DSN7000I *csect-name* **REQUIRED CSECT DSN6GRP COULD NOT BE FOUND IN SYSTEM PARAMETERS LOAD MODULE.**

Explanation: The required CSECT DSN6GRP was not found in the system parameters load module.

System Action: The DB2 subsystem terminates with reason code 00F70001.

Operator Response: Restart DB2 with the correct system parameters load module.

System Programmer Response: Reassemble the system parameters load module and include the DSN6GRP macro.

DSN7001I *csect-name* **DATA SHARING SPECIFIED IN SYSTEM PARAMETERS, BUT NOT RUNNING ON A MVS SYSTEM LEVEL WHICH IS REQUIRED FOR DATA SHARING.**

Explanation: A DB2 subsystem was started with the data sharing option, but MVS is not at the required level. DB2 data sharing requires MVS Version 5 Release 1.0 or a later release.

System Action: The DB2 subsystem terminates with reason code 00F70002.

Operator Response: Restart DB2 on MVS Version 5 Release 1.0 or a later release.

DSN7002I **LIGHT(YES) ON START DB2 COMMAND WAS IGNORED, SYSTEM IS NOT ENABLED FOR DATA SHARING**

Explanation: DB2 issues this message during DB2 startup if DB2 is started with the LIGHT(YES) keyword and the system is not enabled for data sharing.

System Action: DB2 startup continues normally. DB2 ignores the LIGHT(YES) specification.

DSN7100I *csect-name*

Explanation: This message indicates the beginning of the output from a DISPLAY GROUP command. It is the first line of a multi-line message response.

DSN7101I ***** BEGIN DISPLAY OF GROUP(*group-name*) GROUP LEVEL (*group-level*) PROTOCOL LEVEL (*protocol-level*)**

Explanation: This message is a line of output from a DISPLAY GROUP command.

group-name is the name of the data sharing group.

group-level is a string of three numeric characters:

- Version
- Release
- Modification level

protocol-level is a value that is supplied for serviceability only.

DSN7102I -----

Explanation: This message is a line of output from a DISPLAY GROUP command.

DSN7103I **DB2 DB2 SYSTEM IRLM**

Explanation: This message is a line of output from a DISPLAY GROUP command.

DSN7104I **MEMBER ID SUBSYS CMDPREF STATUS LVL NAME SUBSYS IRLMPROC**

Explanation: This message is a line of output from a DISPLAY GROUP command.

MEMBER

Name of the DB2 data sharing member.

ID

Internally assigned ID for each data sharing member.

SUBSYS

Subsystem name of the data sharing member.

CMDPREF

Command prefix of the data sharing member.

STATUS

State of the data sharing member, which can be 'ACTIVE', 'AI', 'FAILED', 'QUIESCED', 'QI', 'QR', 'QC', 'QIC', 'QIR', or 'QICR' where:

ACTIVE

The member is currently up and running.

AI

The member is active with additional conditions. Indoubt or postponed abort units of recovery are outstanding. This means retained locks are held.

FAILED

The member has terminated abnormally.

QUIESCED

The member is down normally.

QI

The member is down with indoubt URs.

QR The member is down with resynchronization responsibility.

QC The member is down with group buffer pool castout responsibility.

QIC,QIR,QICR
A possible combination of the quiesced states that are listed above.

LVL String of three numeric characters as follows:

- DB2 Version
- DB2 Release
- DB2 Modification level

SYSTEM NAME
Name of the MVS system on which the data sharing member runs.

IRLM SUBSYS
The accompanied IRLM's subsystem name for this DB2.

IRLMPROC
The accompanied IRLM's startup procedure name.

DSN7105I -----

Explanation: This message is a line of output from a DISPLAY GROUP command.

DSN7106I *member-name subsystem-name
command-prefix member-status
mvs-system-name irlm-subsystem-name
irlm-procedure-name*

Explanation: This message is a line of output from a DISPLAY GROUP command. *member-status* can be ACTIVE, QUIESCED, or FAILED. *member-status* may also have the string '****' as output if the member has not been quiesced normally.

QUIESCED
This is a normal quiesced state, as the result of a normal STOP DB2 command.

Q The member is quiesced, but with additional conditions. Q (quiesced) can be paired with one or more of the following letters:

I Indoubt units of recovery (URs) are outstanding. This means retained locks are held.

C There was a castout error. The last updated of the page set or partition could not write from the coupling facility to DASD.

Make sure there is connectivity from the coupling facility to DASD before restarting DB2.

R There is retained information needed

for DB2 to perform resynchronization with one or more remote locations.

When DB2 is restarted, this resynchronization occurs.

ACTIVE
This is a normal active state without conditions

A The member is active, but with the additional conditions. A (active) can be paired with the following letter:

I Indoubt or postponed abort units of recovery (URs) are outstanding. This means retained locks are held.

******* Usually issued if the member has not been quiesced normally. The string '****' may also be paired with the following:

******** Information unknown. This may result if an unwanted member was previously added to the group, and continues to be named in other locations.

The *subsystem-name*, *command-prefix*, *irlm-subsystem-name*, and *irlm-procedure-name* show '****' if this information is unknown.

DSN7107I GROUP ATTACH NAME(group-attach)

Explanation: This message is a line of output from a DISPLAY GROUP command.

group-attach is the group attach name for the data sharing group.

DSN7108I NUMBER LOCK ENTRIES: nnnnnnnnnn

Explanation: This line of output from a DISPLAY GROUP command shows information about the LOCK1 coupling facility structure. The maximum number of lock table entries is displayed.

**DSN7109I SCA STRUCTURE SIZE: nnnnnnnn KB,
STATUS = xx, SCA IN USE: < nnn %**

Explanation: This message is a line of output from a DISPLAY GROUP command.

If the % value is > 0 but < 1, then a "<" character is shown before the 1 % value, e.g. "< 1 %". This can happen if the shared communications area (SCA) structure is very large or if only a small number of SCA entries are in use.

The SCA status can have following values:

IN SCA is in initialization phase.

AC SCA is active.

DS SCA loss of connectivity, delayed action started.

- DC** SCA loss of connectivity, delayed action completed.
- QS** SCA rebuild quiesce function started.
- QC** SCA rebuild quiesce function completed.
- CS** SCA rebuild connect function started.
- CC** SCA rebuild connect function completed.
- OS** SCA rebuild connect complete function started.
- RS** SCA rebuild resource manager invocation started.
- RC** SCA rebuild resource manager invocation completed.
- OC** SCA rebuild connect complete function completed.
- LS** SCA rebuild cleanup function started.
- US** SCA rebuild resource manager invocation started.
- UC** SCA rebuild resource manager invocation completed.
- LC** SCA rebuild cleanup function completed.
- PS** SCA rebuild process complete function started.
- PC** SCA rebuild process complete function completed.
- SS** SCA rebuild stop function started.
- SC** SCA rebuild stop function completed.
- ES** SCA rebuild stop complete function started.
- EC** SCA rebuild stop complete function completed.
- VS** SCA volatility change function started.
- VC** SCA volatility change function completed.
- TE** SCA is in termination phase.

DSN7110I LOCK1 STRUCTURE SIZE: *nnnnnnn* KB

Explanation: This line of output from a DISPLAY GROUP command shows the size of the LOCK1 coupling facility structure.

DSN7111I NUMBER LIST ENTRIES: *nnnnnnnnnnn*, LIST ENTRIES IN USE: < *nnnnnnnnnnn*

Explanation: This line of output from a DISPLAY GROUP command shows information about the LOCK1 coupling facility structure. The maximum number of modify lock list entries and the number of those entries currently in use are displayed. (MVS documentation refers to these list entries as "record data".)

DSN7112I * END DISPLAY OF GROUP(*group-name*)**

Explanation: This message is the last line of output from a DISPLAY GROUP command.

DSN7113I DISPLAY TERMINATED DUE TO INSUFFICIENT MESSAGE SPACE.

Explanation: There is not enough storage available to store the required information from this command.

System Action: The DB2 subsystem displays the group information, but some information is missing.

DSN7114I XCF OR STRUCTURE INFORMATION NOT AVAILABLE. MVS *nnnnnnnnn* RETURN CODE=*xxxxxxxx*, MVS *nnnnnnnnn* REASON CODE=*yyyyyyyyy*.

Explanation: An error occurred during the query of the cross-system coupling facility (XCF) or CF structure information.

nnnnnnnn could be IXCQUERY or IXLMG.

System Action: The DB2 subsystem displays the group, but some XCF or coupling facility structure information is missing. Refer to *MVS/ESA Programming: Sysplex Services Reference* for an explanation of IXCQUERY or IXLMG return and reason codes.

DSN7120I DB2 PARALLEL PARALLEL

Explanation: This message is a line of output from a DISPLAY GROUP command with the DETAIL option.

DSN7121I MEMBER COORDINATOR ASSISTANT

Explanation: This message is a line of output from a DISPLAY GROUP command with the DETAIL option.

DSN7122I -----

Explanation: This message is a line of output from a DISPLAY GROUP command with the DETAIL option.

DSN7123I *member-name parallel-coordinator parallel-assistant*

Explanation: This message is a line of output from a DISPLAY GROUP command with the DETAIL option. This message is only issued for ACTIVE DB2 members that support Sysplex query parallelism.

DSN7401I *csect-name* **INCONSISTENT DATA SHARING PARAMETER DETECTED, *parameter-name* IN DB2 SYSTEM PARAMETERS (*sysparm-parm*) IS NOT EQUAL TO PARAMETER IN THE DB2 START-UP PROCEDURE (*start-parm*).**

Explanation: At least one data sharing parameter in the member's system parameters is not equal to the data sharing parameter value passed on the DB2 start-up procedure.

System Action: The DB2 subsystem terminates with reason code 00F70003.

Operator Response: Restart DB2 with the correct system parameters load module or inform the system programmer to change the DB2 start-up procedure.

System Programmer Response: Reassemble the system parameters load module. Make sure that the group name and the member name match the values in the DB2 start-up procedure, or correct the parameters on the DB2 start-up procedure.

DSN7403I *csect-name* **MEMBER(*member-name*) IS ALREADY ACTIVE ON SYSTEM(*mvs-system-name*).**

Explanation: The started DB2 subsystem is already active on another MVS system.

System Action: The DB2 subsystem terminates with reason code 00F70003.

Operator Response: If you want the DB2 subsystem to run on this MVS system, stop the DB2 subsystem on the other MVS. After the DB2 subsystem stops, restart the DB2 on this MVS.

DSN7404I *csect-name* **INVALID MEMBER(*member-name*) WAS FOUND IN DB2 XCF GROUP(*db2-group-name*). MEMBER HAS BEEN DELETED.**

Explanation: The invalid member was found in a DB2 data sharing group, which is a particular type of cross-system coupling facility (XCF) group. The invalid name *member-name* was found in data sharing group *db2-group-name* and was deleted. *member-name* might represent an unauthorized program, other than DB2 for MVS/ESA, that attempted to join the data sharing group.

System Action: The DB2 subsystem continues.

Operator Response: Report the occurrence of this message to your system programmer.

System Programmer Response: Investigate which unauthorized program joined the DB2 group and find its owner. This could indicate a security violation.

DSN7405I *csect-name* **MEMBER(*member-name*) UNABLE TO JOIN DATA SHARING GROUP(*group-name*), MVS IXCJOIN RETURN CODE=*xxxxxxx*, MVS IXCJOIN REASON CODE=*yyyyyyyy*.**

Explanation: An unexpected error occurred when the data sharing DB2 member attempted to join the MVS cross-system coupling facility (XCF) data sharing group.

System Action: The DB2 subsystem terminates with reason code 00F70408.

Operator Response: Issue an MVS 'DISPLAY XCF,GROUP' command to ensure that XCF is functional; then try to restart the DB2 subsystem.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the IXCJOIN return and reason codes.

DSN7406I *csect-name* **UNABLE TO QUERY DATA SHARING GROUP INFORMATION, MVS IXCQUERY RETURN CODE=*xxxxxxx*, MVS IXCQUERY REASON CODE=*yyyyyyyy*.**

Explanation: An unexpected error occurred during the execution of the MVS IXCQUERY macro.

System Action: The DB2 subsystem terminates with reason code 00F70406.

Operator Response: Issue an MVS DISPLAY XCF,GROUP command to ensure that XCF is functional. Then try to restart the DB2 subsystem again.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the IXCQUERY return and reason codes.

DSN7407I *csect-name* **AUTOMATIC RESTART MANAGER *function* FAILED. MVS IXCARM RETURN CODE = *xxxxxxx*, MVS IXCARM REASON CODE = *yyyyyyyy*.**

Explanation: DB2 encountered an error using the specified MVS automatic restart manager (ARM) function.

System Action: DB2 continues. However, if DB2 abnormally terminates, the MVS ARM cannot automatically restart DB2.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for the function, return code, and reason code from the IXCARM request.

DSN7408I *csect-name* **ARM EVENT EXIT FAILED. DB2 SUBSYSTEM *ssnm* NOT RESTARTED. MVS IEFSSI RETURN CODE = xxxxxxxx, MVS IEFSSI REASON CODE = yyyyyyyy.**

Explanation: The DB2 ARM event exit encountered an error while attempting to define the DB2 subsystem to MVS.

System Action: The automatic restart of the DB2 subsystem is stopped.

System Programmer Response: Refer to *MVS/ESA Programming: Assembler Services Reference* for return and reason codes from the IEFSSI request. If the IEFSSI return code and reason code are 0, look in the console log for previous messages that indicate why the definition of the DB2 subsystem failed. You can manually start DB2 by using the -START DB2 command on any system where the DB2 subsystem is defined.

DSN7409I *csect-name* **MEMBER(*member-name*) UNABLE TO QUIESCE FROM DATA SHARING GROUP(*group-name*), MVS IXCQUIES RETURN CODE=xxxxxxx, MVS IXCQUIES REASON CODE=yyyyyyyy.**

Explanation: An unexpected error occurred when the data sharing DB2 member attempted to place itself in an MVS cross-system coupling facility (XCF) quiesced state.

System Action: The DB2 subsystem termination continues.

Operator Response: Inform your system programmer.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the IXCQUIES return and reason codes.

DSN7501A *csect-name* **SCA STRUCTURE *sca-structure-name* CONNECTIVITY FAILURE.**

Explanation: The specified DB2 member lost connectivity to the shared communication area (SCA) structure.

System Action: The specified DB2 disconnects from the SCA and terminates with reason code 00F70600.

Operator Response: Notify the system programmer.

System Programmer Response: Find out why the link from this central processor complex (CPC) to the SCA structure was lost. After fixing it, restart DB2.

DSN7502I *csect-name* **SCA STRUCTURE *sca-structure-name* FAILURE, ATTEMPT TO REBUILD IS IN PROGRESS.**

Explanation: The specified DB2 member detected the shared communications area (SCA) structure failure.

System Action: DB2 tries to rebuild the SCA structure on a coupling facility in the preference list for the coupling facility.

Operator Response: Wait for message DSN7503I or DSN7504A.

DSN7503I *csect-name* **SCA STRUCTURE *sca-structure-name* REBUILD SUCCESSFUL.**

Explanation: This member successfully connected to a shared communications area (SCA) structure on the same or an alternate coupling facility and completed restoration of its information in the shared communications area (SCA).

System Action: DB2 processing continues.

DSN7504I *csect-name* **SCA STRUCTURE *sca-structure-name* REBUILD UNSUCCESSFUL. REASON CODE = xx.**

Explanation: This member has not successfully connected to a shared communication area (SCA) structure on an alternate coupling facility and completed restoration of its information in the shared communications area (SCA). This message follows message DSN7502I.

- 04** An operator requested to stop the rebuild process.
- 08** A DB2 resource manager requested to stop the rebuild process.
- 12** The new SCA structure failed during the rebuild process.
- 16** A DB2 member lost connectivity to the new SCA in the rebuild process.
- 20** An MVS service used during the rebuild process failed. A message was issued from the failed MVS service.

System Action: This DB2 member terminates with reason code 00F70601. Other members can continue processing.

System Programmer Response: See the termination code for more details.

DSN7505A *csect-name* **THERE IS A SHORTAGE OF FREE STORAGE IN SCA STRUCTURE** *sca-structure-name*

Explanation: The amount of free storage in the shared communications area (SCA) coupling facility structure is low. The SCA is 75 percent full. Because SCA storage space is required by some DB2 commands and processes, the availability of those processes might be affected. Completely running out of SCA storage can cause DB2 subsystem outages.

This message stays on the MVS console and is highlighted.

System Action: DB2 processing continues.

This message might remain highlighted and might not be automatically deleted in a pre SP5.2.1-JES3 environment.

Operator Response: If the message remains highlighted after the error situation is cleared up, manually delete the message from the console.

System Programmer Response: You can monitor the amount of SCA storage in use with the DISPLAY GROUP command.

You can free SCA storage by removing exception conditions. Another thing you can do is issue START DATABASE commands with the SPACENAM option or use the RECOVER utility to remove pages from the logical page list (LPL).

If you don't do anything to reclaim space, message DSN7512A appears when the SCA is 90 percent full.

DSN7506A *csect-name* **CONNECT TO THE SCA STRUCTURE** *sca-structure-name* **FAILED. MVS IXLCONN RETURN CODE=xxxxxxx, MVS IXLCONN REASON CODE=yyyyyyyy.**

Explanation: DB2 cannot connect to the shared communications area (SCA) coupling facility structure.

System Action: DB2 startup terminates with reason code 00F70602.

System Programmer Response: DB2 uses the MVS IXLCONN service to connect to the SCA structure. Refer to *MVS/ESA Programming: Sysplex Services Reference* for return and reason codes from the IXLCONN request.

DSN7507I *csect-name* **SCA STRUCTURE** *sca-structure-name* **IS ALLOCATED IN A VOLATILE STRUCTURE.**

Explanation: The shared communications area (SCA) structure is volatile.

System Action: DB2 processing continues.

System Programmer Response: One DB2 issues

this message whenever the structure has the volatile attribute. DB2 detects this either on the first connection to the SCA or on the attribute changes later. DB2 always requests a nonvolatile SCA. If this is not what you want, change the MVS CFRM administrative policy and request a rebuild of the SCA with the MVS SETXCF START,REBUILD command.

DSN7508I *csect-name* **ACCESS TO THE SCA STRUCTURE** *sca-structure-name* **FAILED. MVS IXLLIST RETURN CODE = xxxxxxxx, MVS IXLLIST REASON CODE = yyyyyyyy.**

Explanation: DB2 encountered an error in accessing the shared communications area (SCA) structure.

System Action: DB2 terminates with reason code 00F70603.

System Programmer Response: DB2 uses the MVS IXLLIST service to access the SCA structure. Refer to *MVS/ESA Programming: Sysplex Services Reference* for return and reason codes from the IXLLIST request.

DSN7509I *csect-name* **SCA STRUCTURE** *sca-structure-name* **IS ALLOCATED IN A NONVOLATILE STRUCTURE.**

Explanation: The SCA structure is now contained in a nonvolatile coupling facility structure.

System Action: DB2 processing continues.

DSN7510I *csect-name* **SCA STRUCTURE** *sca-structure-name* **REBUILD REQUEST RECEIVED, BUT SUBSYSTEM IS NOT READY TO PARTICIPATE.**

Explanation: The DB2 subsystem received a request from MVS to rebuild the shared communications area (SCA), but DB2 is not ready to participate in this process because DB2 startup has not yet completed.

System Action: DB2 terminates with reason code 00F70604. The SCA rebuild process might continue for other DB2s in the data sharing group.

Operator Response: Wait until the SCA rebuild process is finished and then start the failed DB2 again.

DSN7511I *csect-name* **RESPONSE TO MVS REBUILD COMPLETE OF SCA STRUCTURE** *sca-structure-name* **FAILED. MVS IXLREBLD RETURN CODE = xxxxxxxx, MVS IXLREBLD REASON CODE = yyyyyyyy.**

Explanation: DB2 encountered an error during the rebuild of the shared communications area (SCA) structure.

System Action: DB2 stops.

System Programmer Response: DB2 uses the MVS IXLREBLD service during the SCA structure rebuild. Refer to *MVS/ESA Programming: Sysplex Services Reference* for return and reason codes from the IXLREBLD request.

DSN7512A *csect-name* **THERE IS A CRITICAL SHORTAGE OF FREE STORAGE IN SCA STRUCTURE** *sca-structure-name*

Explanation: The amount of free storage in the shared communications area (SCA) coupling facility structure is critically low. The SCA is 90 percent full.

This message stays on the MVS console and is highlighted.

System Action: DB2 processing continues. However, DB2 limits use of SCA to critical information. Some utilities or commands that cannot be completed can cause one or more members of the group to come down.

This message might remain highlighted and might not be automatically deleted in a pre SP5.2.1-JES3 environment.

Operator Response: If the message remains highlighted after the error situation is cleared up, manually delete the message from the console.

System Programmer Response: You can monitor the amount of SCA storage in use with the DISPLAY GROUP command.

You can free SCA storage by removing exception conditions. Another thing you can do is issue START DATABASE commands with the SPACENAM option or use the RECOVER utility to remove pages from the logical page list (LPL). Then restart any failed DB2s.

If your actions do not free up enough space, or if the problem continues to occur, you have the following options, depending on what level of MVS and the coupling facility control code you are running with:

- If all members of the group are running with MVS Version 5 Release 2 and with a coupling facility control code level greater than 0, issue the SETXCF START,ALTER command to increase the size of the SCA. The size you specify must be less than or equal to the maximum size defined in the CFRM policy for the SCA structure.

If the maximum size (SIZE in the CFRM policy) is still not big enough, take the actions described below for MVS Version 5 Release 1 systems.

- If any or all members of the group are running with MVS Version 5 Release 1 or with a coupling facility control code level of 0, increase the storage for the SCA in the CFRM policy. Then issue the MVS SETXCF START,REBUILD command to rebuild the structure.

Refer to *DB2 Data Sharing: Planning and Administration* for more detailed recovery information.

DSN7513I *csect-name* **SCA STRUCTURE**
sca-structure-name **HAS ADEQUATE FREE STORAGE.**

Explanation: The shared communications area (SCA) coupling facility structure has adequate free storage to function properly.

This message is shown in the following circumstances:

- After the SCA was rebuilt.
- After the SCA usage goes below 67%, after its usage was up to 75% or higher.

System Action: DB2 processing continues.

DSN7514I *csect-name* **RESPONSE TO AN MVS REBUILD RELATED EVENT FOR THE SCA STRUCTURE** *sca-structure-name*
FAILED. MVS IXLEERSP RETURN CODE = xxxxxxxx, MVS IXLEERSP REASON CODE = yyyyyyyy.

Explanation: DB2 encountered an error during the rebuild of the shared communications area (SCA) structure.

System Action: DB2 terminates.

System Programmer Response: DB2 uses the MVS IXLEERSP service to respond to SCA structure rebuild. Refer to *MVS/ESA Programming: Sysplex Services Reference* for return and reason codes from the IXLEERSP request.

Chapter 29. DSN8... messages

DSN8000I *REQUEST IS: request*

Explanation: The input statement is listed as received.

This message is issued by the following CSECTs:
DSN8BD3, DSN8BF3

System Action: The request is listed.

User Response: See if the input request is what you want.

DSN8001I *csect EMPLOYEE NOT FOUND*

Explanation: The 'I' or 'list' request found no employee data that match your request.

System Action: No employees are listed.

User Response: If no employee data was expected to be found, continue.

Problem Determination: If the error is unexpected, list the contents of the employee and department views VEMP and VDEPT to determine why the entry is missing.

DSN8002I *csect EMPLOYEE SUCCESSFULLY ADDED*

Explanation: Employee data was added as requested.

System Action: The request was executed successfully.

DSN8003I *csect EMPLOYEE SUCCESSFULLY ERASED*

Explanation: Data for an employee was erased as requested.

System Action: The request was executed successfully.

DSN8004I *csect EMPLOYEE SUCCESSFULLY UPDATED*

Explanation: Data for an employee was updated as requested.

System Action: The request was executed successfully.

DSN8005E *csect EMPLOYEE EXISTS ALREADY, ADD NOT DONE*

Explanation: A request was made to add data for a new employee, but the employee number already exists.

System Action: No employee data is added.

User Response: Display the existing employee data. If this is the desired employee, update the employee entry. Otherwise, choose a new employee number.

Problem Determination: List the contents of the employee view, VEMP, and the department view, VDEPT.

DSN8006E *csect EMPLOYEE DOES NOT EXIST, ERASE NOT DONE*

Explanation: The erase requested was not performed. The employee number requested was not present in the table.

System Action: No employee data is erased.

User Response: Determine if the employee data to be erased should exist. Verify that the correct search criteria and data were entered. If appropriate, correct the entries and continue processing.

Problem Determination: List the contents of the employee view, VEMP, and the department view, VDEPT.

DSN8007E *csect EMPLOYEE DOES NOT EXIST, UPDATE NOT DONE*

Explanation: The update requested was not performed. The employee number requested was not present in the table.

System Action: No employee data is updated.

User Response: Verify that the correct search criteria and data were entered.

Problem Determination: List the contents of the employee table (VPHONE, VEMPLP, or EMP) and see if the employee number to be updated is in the table. Correct the update request or the table.

DSN8008I *csect NO EMPLOYEE FOUND IN TABLE*

Explanation: No employees match the selection criteria.

System Action: No employee data is listed.

User Response: If no employee data was expected, continue processing.

Problem Determination: List the contents of the VPHONE view and the underlying tables.

DSN8011I *csect DEPARTMENT NOT FOUND*

Explanation: No departments match the selection criteria.

System Action: No departments are listed.

DSN8012I • DSN8021I

User Response: If no departments are expected to be found, continue.

Problem Determination: If the error is unexpected, list the contents of the department views VDEPT and VDEPMG1 and their underlying tables to determine why the entry is missing.

DSN8012I *csect* **DEPARTMENT SUCCESSFULLY ADDED**

Explanation: A department was added as requested.

System Action: The request was executed successfully.

DSN8013I *csect* **DEPARTMENT SUCCESSFULLY ERASED**

Explanation: Data for a department was erased as requested.

System Action: The request was executed successfully.

DSN8014I *csect* **DEPARTMENT SUCCESSFULLY UPDATED**

Explanation: Data for a department was updated as requested.

System Action: The request was executed successfully.

DSN8015E *csect* **DEPARTMENT EXISTS ALREADY, ADD NOT DONE**

Explanation: You requested that a new department be added, but the department exists already.

System Action: No departments are added.

User Response: Display data for the existing department. If it is what you want, continue. If not, you can update data for this department or choose a new department id.

Problem Determination: If the error is unexpected, list the contents of the department views VDEPT and VDEPMG1 and their underlying tables to see if the data differs from what is expected.

DSN8016E *csect* **DEPARTMENT DOES NOT EXIST, ERASE NOT DONE**

Explanation: The erase request found no departments which match your request.

System Action: No department data is erased.

User Response: See if the department data to be erased should exist. Did you enter the correct combination of search criteria and data? If not, correct the entries and continue.

Problem Determination: If the error is unexpected, list the contents of the department views VDEPT and VDEPMG1 and their underlying tables to determine why the entry is missing.

DSN8017E *csect* **DEPARTMENT DOES NOT EXIST, UPDATE NOT DONE**

Explanation: The update request found no department data which matches your request.

System Action: No department data is updated.

User Response: See if the department data to be updated should exist. If you did not enter the correct combination of search criteria and data, correct the entries and continue.

Problem Determination: If the error is unexpected, list the contents of the department views VDEPT and VDEPMG1 and their underlying tables to determine why the entry is missing.

DSN8018I *csect* **CURRENT DEPARTMENT NOT FOUND**

Explanation: A request was made by a 'current' department to reference a 'higher' department. The 'current' department was not found.

System Action: No department data is processed.

User Response: If the 'current' department was not expected to exist, continue processing.

Problem Determination: List the contents of the department views VDEPMG1, VEMP, VASTRDE1, and VASTRDE2 and their underlying tables.

DSN8019E *csect* **NO HIGHER DEPARTMENT EXISTS**

Explanation: A request was made by a 'current' department to reference a 'higher' level of the department structure. A 'higher' level does not exist for the requested 'current' department.

System Action: No department data is processed.

User Response: If a 'higher' department was not expected to be found, continue processing.

Problem Determination: List the contents of the department views VDEPMG1, VEMP, VASTRDE1, and VASTRDE2 and their underlying tables.

DSN8021I *csect* **ACTIVITY NOT FOUND**

Explanation: No activities match the selection criteria.

System Action: No activity is listed.

User Response: If no activity was expected to be found, continue processing.

Problem Determination: List the contents of the

activity views VPROJRE1, VACT, and VPROJACT and their underlying tables.

DSN8022I *csect* **ACTIVITY SUCCESSFULLY ADDED**

Explanation: An activity was added as requested.

System Action: The request was executed successfully.

DSN8023I *csect* **ACTIVITY SUCCESSFULLY ERASED**

Explanation: An activity was erased as requested.

System Action: The request was executed successfully.

DSN8024I *csect* **ACTIVITY SUCCESSFULLY UPDATED**

Explanation: An activity was updated as requested.

System Action: The request was executed successfully.

DSN8025E *csect* **ACTIVITY EXISTS ALREADY, ADD NOT DONE**

Explanation: The addition requested was not performed. The activity requested was already present.

System Action: No activity is added.

User Response: If the activity was expected to already exist, continue processing.

Problem Determination: List the contents of the activity views VPROJRE1, VACT, and VPROJACT and their underlying tables.

DSN8026E *csect* **ACTIVITY DOES NOT EXIST, ERASE NOT DONE**

Explanation: The erase requested was not performed. The activity requested was not found.

System Action: No activity is erased.

User Response: If the activity was not expected to be found, continue processing.

Problem Determination: List the contents of the activity views VPROJRE1, VACT, and VPROJACT and their underlying tables.

DSN8027E *csect* **ACTIVITY DOES NOT EXIST, UPDATE NOT DONE**

Explanation: The update requested was not performed. The activity requested was not found.

System Action: No activity is updated.

User Response: Determine if the activity to be

updated should exist. Verify that the correct search criteria and data were entered. If appropriate, correct the entries and continue processing.

Problem Determination: List the contents of the activity views VPROJRE1, VACT, and VPROJACT and their underlying tables.

DSN8028I *csect* **ACTIVITY TYPE NOT FOUND, PLEASE ADD IT INTERACTIVELY**

Explanation: The add or update was not performed. The activity type entered was not found.

System Action: No activity is listed.

User Response: If the activity type was not expected to be found, add it interactively.

Problem Determination: List the contents of the activity view, VACT, and its underlying tables.

DSN8031I *csect* **PROJECT NOT FOUND**

Explanation: No projects match the selection criteria.

System Action: No projects are listed.

User Response: If no projects are expected to be listed, continue.

Problem Determination: If the error is unexpected, list the contents of the project view VPROJ and its underlying tables to determine why the entry is missing.

DSN8032I *csect* **PROJECT SUCCESSFULLY ADDED**

Explanation: A project was added as requested.

System Action: The request was executed successfully.

DSN8033I *csect* **PROJECT SUCCESSFULLY ERASED**

Explanation: A project was erased as requested.

System Action: The request was executed successfully.

DSN8034I *csect* **PROJECT SUCCESSFULLY UPDATED**

Explanation: The update was performed as requested.

System Action: The request was executed successfully.

DSN8035E *csect* **PROJECT EXISTS ALREADY,
ADD NOT DONE**

Explanation: You requested that a new project be added, but the project exists already.

System Action: The request was not executed successfully.

User Response: Display the existing project. If it is what you want, continue. If not, you can update this project or choose a new project id.

Problem Determination: If the error was unexpected, list the contents of the project view VPROJ and its underlying tables to see if the data differs from what is expected.

DSN8036E *csect* **PROJECT DOES NOT EXIST,
ERASE NOT DONE**

Explanation: The erase request found no project which matches your request.

System Action: No projects are erased.

User Response: See if the project to be erased should exist. Did you enter the correct combination of search criteria and data? If not, correct the entries and continue.

Problem Determination: If the error was unexpected, list the contents of the project view VPROJ and its underlying tables to determine why the entry is missing.

DSN8037E *csect* **PROJECT DOES NOT EXIST,
UPDATE NOT DONE**

Explanation: The update request found no project which matches your request.

System Action: No projects are updated.

User Response: See if the project to be updated should exist. If you did not enter the correct combination of search criteria and data, correct the entries and continue.

Problem Determination: If the error is unexpected, list the contents of the project view VPROJ and its underlying tables to determine why the entry is missing.

DSN8038I *csect* **CURRENT PROJECT NOT FOUND**

Explanation: A request was made by a 'current' project to reference a 'higher' project. The 'current' project was not found.

System Action: No project data is processed.

User Response: If the 'current' project was not expected to be found, continue processing.

Problem Determination: List the contents of the project views VPROJRE1, VDEPT, VEMPPROJACT, VEMP, VSTAFAC1, VSTAFAC2, VPSTRDE1, and

VPSTRDE2 and their underlying tables.

DSN8039E *csect* **NO HIGHER PROJECT EXISTS**

Explanation: A request was made by a 'current' project to reference a 'higher' level of the project structure. A 'higher' level does not exist for the requested 'current' project.

System Action: No project data is processed.

User Response: If a 'higher' project was not expected to be found, continue processing.

Problem Determination: List the contents of the project views VPROJRE1, VDEPT, VEMPPROJACT, VEMP, VSTAFAC1, VSTAFAC2, VPSTRDE1, and VPSTRDE2 and their underlying tables.

DSN8041I *csect* **STAFFING NOT FOUND**

Explanation: No project staffing matches the selection criteria.

System Action: No project staffing is listed.

User Response: If no project staffing was expected to be found, continue processing.

Problem Determination: List the contents of the project activity views VPROJRE1, VEMPPROJACT, VACT, and VEMP and their underlying tables.

DSN8042I *csect* **STAFFING SUCCESSFULLY
ADDED**

Explanation: A project staffing was added as requested.

System Action: The request was executed successfully.

DSN8043I *csect* **STAFFING SUCCESSFULLY
ERASED**

Explanation: A project staffing was erased as requested.

System Action: The request was executed successfully.

DSN8044I *csect* **STAFFING SUCCESSFULLY
UPDATED**

Explanation: A project staffing was updated as requested.

System Action: The request was executed successfully.

DSN8045E *csect* **STAFFING EXISTS ALREADY,
ADD NOT DONE**

Explanation: A request was made to add a project staffing, but the project staffing already exists.

System Action: No project staffing is added.

User Response: Display the existing project staffing. If this is the desired project staffing, update it. Otherwise, choose a new project staffing.

Problem Determination: List the contents of the project activity views VPROJRE1, VEMPPROJACT, VACT, and VEMP and their underlying tables.

DSN8046E *csect* **STAFFING DOES NOT EXIST,
ERASE NOT DONE**

Explanation: The project staffing was not erased as requested.

System Action: No project staffing is erased.

User Response: Determine if the project staffing to be erased should exist. Verify that the correct search criteria and data were entered. If appropriate, correct the entries and continue processing.

Problem Determination: List the contents of the project activity views VPROJRE1, VEMPPROJACT, VACT, and VEMP and their underlying tables.

DSN8047E *csect* **STAFFING DOES NOT EXIST,
UPDATE NOT DONE**

Explanation: The update was not performed because the project staffing requested was not found.

System Action: No project staffing is updated.

User Response: Determine if the project staffing to be updated should exist. Verify that the correct search criteria and data were entered. If appropriate, correct the entries and continue processing.

Problem Determination: List the contents of the project activity views VPROJRE1, VEMPPROJACT, VACT, and VEMP and their underlying tables.

DSN8051I *csect* **PROGRAM ENDED**

Explanation: The application program finished.

DSN8053I *csect* **ROLLBACK SUCCESSFUL, ALL
UPDATES REMOVED**

Explanation: After any SQLWARNING or SQLERROR, all updates are removed via a ROLLBACK statement to prevent invalid updates.

System Action: The ROLLBACK was executed successfully.

User Response: Correct the prior error.

DSN8056I *csect* **NO MORE DATA TO DISPLAY**

Explanation: The last page of data has been displayed.

System Action: No more data is shown on screen.

User Response: If you expect no more data to be displayed, continue.

Problem Determination: If more displayed data is expected, list the contents of the view and the underlying tables to see if the data differs from what is expected.

DSN8057I *csect* **FURTHER ENTRIES IN TABLE -
UPDATE POSSIBLE**

Explanation: More data exists beyond that shown on the screen.

System Action: No more data is shown on screen.

User Response: Update entries as needed.

DSN8058I *csect* **PRESS PA1 FOR NEXT PAGE /
ENTER FOR SELECTION MENU**

Explanation: Press the PA1 key to see the data on the next page or press the ENTER key to return to the selection menu.

User Response: Press the PA1 key or the ENTER key depending on the function you want to perform.

DSN8060E *csect* **SQL ERROR, RETURN CODE IS:
sqlcode**

Explanation: The SQL statement did not execute correctly. The 'sqlcode' can be found elsewhere in this manual. This may be an SQL error or an SQL warning.

System Action: The request was not executed successfully.

User Response: Refer to Part 2, "SQL return codes," on page 11 for more information about the error.

Problem Determination: Determine which SQL statement in the application program caused the error and see if it is reproducible. Follow the diagnosis approach suggested for the sqlcode.

DSN8061E *csect* **ROLLBACK FAILED, RETURN
CODE IS: sqlcode**

Explanation: The SQL ROLLBACK statement was not executed correctly.

System Action: The request was not executed successfully.

User Response: Refer to Part 2, "SQL return codes," on page 11.

Problem Determination: Determine which SQL

DSN8062E • DSN8072E

statement in the application program caused the error and see if it is reproducible. Follow the diagnosis approach suggested for the sqlcode.

DSN8062E *csect* AN OBJECT WAS NOT SELECTED

Explanation: You did not specify an object code on the input line.

User Response: Select one of the object codes listed on the panel.

DSN8064E *csect* INVALID DL/I STC-CODE ON GU MSG: *status-code*

Explanation: In attempting to get a message from IMS, an unexpected status-code was received.

System Action: The application program is terminated.

Problem Determination: Refer to the messages and codes manual for IMS/VS to determine the reason for the unexpected status code.

DSN8065E *csect* INVALID DL/I STC-CODE ON ISRT MSG: *status-code*

Explanation: In attempting to insert a message for IMS, an unexpected status-code was received.

System Action: The application program is terminated.

Problem Determination: Refer to the messages and codes manual for IMS/VS to determine the reason for the unexpected status code.

DSN8066E *csect* UNSUPPORTED PFK OR LOGIC ERROR

Explanation: The sample application found an unsupported program function key or logic error while trying to execute a request.

System Action: The request was not executed successfully.

User Response: Report the error in the application program.

DSN8067E *csect* UNSUPPORTED SEARCH CRITERIA FOR OBJECT

Explanation: You entered a search criteria value and an object value that do not find any selections.

System Action: The request was not executed successfully.

User Response: Enter new search criteria values.

Problem Determination: If the values you entered are expected to provide valid selections, check the contents

of the view and the underlying tables to see if the data differs from what is expected. If after checking the view and the underlying tables, you find the search criteria values you entered should provide valid selections, the error is in the sample program. Report the error.

DSN8068E *csect* INVALID REQUEST SHOULD BE 'L' OR 'U'

Explanation: The input must begin with 'L' or 'U'.

System Action: The request is ignored.

User Response: Correct the input request.

DSN8069E *csect* NO VALID SELECTIONS QUALIFY FOR THIS REQUEST

Explanation: You entered a search criteria value and a data values that do not find any selections.

System Action: The request was not executed successfully.

User Response: Enter new search criteria values.

Problem Determination: If the criteria values you entered are expected to provide valid selections, check the contents of the view and the underlying tables to see if the data differs from what is expected. If after checking the view and the underlying tables, you find the search criteria values you entered should provide valid selections, the error is in the sample program. Report the error.

DSN8070E *csect* VITAL DATA IS MISSING IN TABLE TOPTVAL

Explanation: No valid entries exist in the table that contains possible valid entries.

System Action: The request was not executed successfully.

User Response: There is no valid entry you can enter. Report the error in the sample program.

DSN8072E *csect* INVALID SELECTION ON SECONDARY SCREEN

Explanation: You gave an invalid line number.

System Action: The request was not executed successfully.

User Response: You entered a number that is not in the list on the left under the heading NO for line number. Enter a valid number.

Problem Determination: If the line number you entered is in the list on the left under the heading NO for line number, then the error is in the sample program.

DSN8073E *csect* **SPECIFIED LINE-NUMBER NOT FOUND IN PREVIOUS SCREEN**

Explanation: You gave an invalid line number.

System Action: The request was not executed successfully.

User Response: You entered a number that is not in the list on the left under the heading NO for line number. Enter a valid number. If the line number is in the previous screen, then this is an error in the sample program. Report the error.

DSN8074E *csect* **DATA IS TOO LONG FOR SEARCH CRITERIA**

Explanation: You entered a data value that has too many characters for the type of search criterion you selected. For example, department ids have a maximum of 3 characters and most other ids have a maximum of 6 characters.

System Action: The request was not executed successfully.

User Response: Enter a data value with the correct number of characters.

DSN8075E *csect* **MESSAGE FORMAT ROUTINE ERROR, RETURN CODE IS:** *sqlcode*

Explanation: There is an error in the parameters passed to the SQLCA formatting routine, DSNTIAR.

System Action: The SQLCA could not be formatted properly.

User Response: This is an error in the program. Check the return code listing of DSNTIAR in Part 2 of *DB2 Application Programming and SQL Guide*. Report the error.

DSN8076E *csect* **VITAL DATA IS MISSING IN TABLE 'TDSPTXT'**

Explanation: No valid entries exist in the table that contains possible valid entries.

System Action: The request was not executed successfully.

User Response: There is no valid entry you can enter. Report the error in the application program.

DSN8079E **CONNECTION TO DB2 NOT ESTABLISHED**

Explanation: Sample programs DSN8SC3, DSN8SP3, and DSN8HC3 cannot be called directly from TSO. Instead, they must be called from the ISPF sample connection manager, DSN8SCM or DSN8SPM.

System Action: The program ends.

User Response: Call the desired program through the connection manager, DSN8SCM or DSN8SPM.

DSN8080E **APPLICATION TERMINATED WITH CALL ATTACH REASON CODE**
reason-code

Explanation: The call attachment facility service requested by the application program did not execute successfully.

This message is issued by the following CSECTs: DSN8SCM, DSN8SPM

System Action: The requested service is not executed.

User Response: Notify the system programmer.

System Programmer Response: Check the call attachment facility reason code.

Problem Determination: Follow the failure analysis procedures for the call attachment facility reason code.

DSN8081E **RESULTS FROM THE CALL ATTACH TRANSLATE SERVICE**

Explanation: The call attachment facility OPEN service that was requested from the application program did not execute successfully. The TRANSLATE service was requested to provide information about the OPEN failure.

System Action: The requested OPEN service was not executed.

User Response: Refer to Part 2, "SQL return codes," on page 11.

Problem Determination: Refer to Part 2, "SQL return codes," on page 11 for more information about the error.

DSN8082E **THE DISCONNECT TERMINATED WITH REASON CODE** *reason-code*

Explanation: The call attachment facility DISCONNECT service requested by the application program did not execute successfully.

System Action: The requested DISCONNECT service is not executed.

User Response: Notify the system programmer.

System Programmer Response: Check the call attachment facility reason code.

Problem Determination: Follow the failure analysis procedures for the call attachment facility reason code.

DSN8083E AN UNKNOWN SERVICE *service* WAS REQUESTED

Explanation: The user is requesting an invalid service.

This message is issued by the following CSECTs: DSN8SCM, DSN8SPM

System Action: The requested service was not executed.

User Response: Notify the system programmer.

System Programmer Response: The service request must be a valid call attachment facility service. Ensure that the request is one of the services supported by the call attachment facility.

Problem Determination: There is an error in the Sample Application Program.

DSN8200E *csect* INVALID DEPARTMENT NUMBER, EMPLOYEE NOT ADDED

Explanation: The employee number that is to be added refers to a department number that is not contained in the table DEPT.

System Action: The employee number is not added.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the department table DEPT.

DSN8202E *csect* EMPLOYEE NUMBER HAS DEPENDENT ROWS, NOT ERASED

Explanation: The employee number to be erased is the same as a responsible employee number in the table PROJ or an employee number in the table EMP PROJACT. The employee number cannot be erased from the table EMP.

System Action: No employee data is erased.

User Response: Ensure that the correct employee number was entered.

Problem Determination: List the contents of the PROJ and EMP PROJACT tables.

DSN8203E *csect* INVALID WORK DEPT, EMPLOYEE NOT UPDATED

Explanation: The employee that is to be updated has a department number that is not contained in the table DEPT. The update cannot be completed.

System Action: No employee data is updated.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the employee table DEPT.

DSN8210I *csect* INVALID MGRNO, DEPARTMENT NOT ADDED

Explanation: The department that is to be added has a manager number that is not contained in the table EMP. The add cannot be completed.

System Action: No department is added.

User Response: Ensure that the correct manager number was entered.

Problem Determination: List the contents of the employee table EMP.

DSN8212E *csect* DEPARTMENT NUMBER HAS DEPENDENT ROWS, NOT ERASED

Explanation: The department number that is to be erased is the same as a project department number in table PROJ. The department cannot be erased.

System Action: No department data is erased.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the project table PROJ.

DSN8213E *csect* INVALID ADMIN DEPT ID, DEPARTMENT NOT ADDED

Explanation: The department that is to be added has a department number that is not contained in the table DEPT. The add cannot be completed.

System Action: No department is added.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the employee table DEPT.

DSN8214E *csect* INVALID MANAGER ID, DEPARTMENT NOT UPDATED

Explanation: The department that is to be updated has a manager number that is not contained in the table EMP. The update cannot be completed.

System Action: No department data is updated.

User Response: Ensure that the correct manager number was entered.

Problem Determination: List the contents of the employee table EMP.

DSN8215E *csect* INVALID ADMIN DEPT ID, DEPARTMENT NOT UPDATED

Explanation: The department that is to be updated has a administrative department number that is not in the table DEPT. The update cannot be completed.

System Action: No department data is updated.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the employee table DEPT.

DSN8216E *csect* DEPT NOT AT SPECIFIED LOCATION, EMPLOYEE NOT ADDED

Explanation: The employee number that is to be added refers to a department number whose LOCATION field in the DEPT table is different from that specified for the employee. The add cannot be completed.

System Action: No employee is added.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the department table DEPT.

DSN8217E *csect* DEPT NOT AT SPECIFIED LOCATION, EMP NOT UPDATED

Explanation: The employee number that is to be updated refers to a department number whose LOCATION field in the DEPT table is different from that specified for the employee. The update cannot be completed.

System Action: No employee data is updated.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the department table DEPT.

DSN8220E *csect* INVALID PROJECT NUMBER, ACTIVITY NOT ADDED

Explanation: The activity that is to be added contains a project number that is not contained in the table PROJ. The add cannot be completed.

System Action: The activity is not added.

User Response: Ensure that the correct project number was entered.

Problem Determination: List the contents of the project table PROJ.

DSN8222E *csect* ACTIVITY HAS DEPENDENT ROWS, NOT ERASED

Explanation: The activity that is to be erased from table PROJACT is the same as the corresponding activity in the table EMPPROJACT. The activity cannot be erased from the table PROJACT.

System Action: No activity data is erased.

User Response: Ensure that the correct activity was entered.

Problem Determination: List the contents of the PROJACT and EMPPROJACT tables.

DSN8223E *csect* ACTIVITY HAS DEPENDENT ROWS, NOT UPDATED

Explanation: A start date in table PROJACT is to be updated, but there is a project staffing for this activity in table EMPPROJACT. The start date in table PROJACT cannot be updated.

System Action: No activity data is updated.

User Response: Ensure that the correct start date was entered.

Problem Determination: List the contents of the project-activity-staffing table EMPPROJACT and project-activity table PROJACT.

DSN8230E *csect* INVALID DEPARTMENT NUMBER, PROJECT NOT ADDED

Explanation: The project that is to be added contains a department number that is not present in the table DEPT. The add cannot be completed.

System Action: No project is added.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the department table DEPT.

DSN8231E *csect* INVALID RESPONSIBLE ID, PROJECT NOT ADDED

Explanation: The project that is to be added contains an employee number that is not contained in the table EMP. The add cannot be completed.

System Action: No project is added.

User Response: Ensure that the correct employee number was entered.

Problem Determination: List the contents of the employee table EMP.

DSN8233E *csect* PROJECT NUMBER HAS DEPENDENT ROWS, NOT ERASED

Explanation: A project number in table PROJ is to be erased, but it is the same as a project number in table PROJACT. The project cannot be erased from table PROJ.

System Action: No project is erased.

User Response: Ensure that correct project number was entered.

Problem Determination: List the contents of the

PROJ and PROJACT tables.

DSN8235E *csect* INVALID MAJOR PROJECT ID,
PROJECT NOT ADDED

Explanation: The project that is to be added contains a major project ID that is not contained in the table PROJ. The add cannot be completed.

System Action: No project is added.

User Response: Ensure that the correct major project number was entered.

Problem Determination: List the contents of the project table PROJ.

DSN8236E *csect* INVALID ASSOCIATE DEPT ID,
PROJECT NOT UPDATED

Explanation: The project that is to be updated has a department number that is not contained in the table DEPT. The update cannot be completed.

System Action: No project data is updated.

User Response: Ensure that the correct department number was entered.

Problem Determination: List the contents of the department table DEPT.

DSN8237E *csect* INVALID RESPONSIBLE ID,
PROJECT NOT UPDATED

Explanation: The project that is to be updated has an employee number that is not contained in the table EMP. The update cannot be completed.

System Action: No project data is updated.

User Response: Ensure that the correct employee number was entered.

Problem Determination: List the contents of the employee table EMP.

DSN8238E *csect* INVALID MAJOR PROJECT ID,
PROJECT NOT UPDATED

Explanation: The project that is to be updated has a major project number that is not contained in the table PROJ. The update cannot be completed.

System Action: No project data is updated.

User Response: Ensure that the correct project number was entered.

Problem Determination: List the contents of the project table PROJ.

DSN8240E *csect* INVALID EMPLOYEE NUMBER,
STAFFING NOT ADDED

Explanation: The staffing that is to be added refers to an employee number that is not present in table EMP. The add cannot be completed.

System Action: No staffing is added.

User Response: Ensure that the correct employee number was entered.

Problem Determination: List the contents of employee table EMP.

DSN8242E *csect* INVALID PROJECT ACTIVITY
DATA, STAFFING NOT ADDED

Explanation: The staffing that is to be added refers to a project number, activity number, and start date that is not present in table PROJACT. The add cannot be completed.

System Action: No staffing is added.

User Response: Ensure that the correct project number, activity number, and start date were entered.

Problem Determination: List the contents of the project table PROJACT.

DSN8243E *csect* INVALID START DATE, STAFFING
NOT UPDATED

Explanation: The start date given is not currently in the project-activity table PROJACT. The update cannot be completed.

System Action: No staffing data is updated.

User Response: Ensure that the correct start date was entered.

Problem Determination: List the contents of the project-activity table PROJACT and the project-activity-staffing table EMP PROJACT.

Chapter 30. DSN9... Messages

DSN9000I **KEYWORD** *keyword-name* **APPEARS MORE THAN ONCE**

Explanation: The same keyword (specified in the messages as 'keyword-name') appears more than once in the command. This message will be issued for each occurrence of the keyword after the first.

System Action: Processing for the command is terminated.

System Programmer Response: Correct the command by using the keyword only once, and reenter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9001I **KEYWORD** *keyword-name* **IS INVALID**

Explanation: The keyword (specified in the message as 'keyword-name') is unknown or undefined. The keyword may be misspelled, or the keyword may not be applicable to the command being processed.

System Action: Processing for the command is terminated.

System Programmer Response: Correct the keyword, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9002I **UNBALANCED PARENTHESES WERE FOUND FOLLOWING KEYWORD** *keyword-name*

Explanation: An invalid combination of parentheses has been encountered following the keyword (specified in the message as 'keyword-name'). Parenthesis must be paired open and close, and a close parenthesis must follow an open parenthesis before another open parenthesis is encountered.

System Action: Processing for the command is terminated.

System Programmer Response: Correct the error, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9003I **KEYWORD** *keyword-name* **PARAMETER CONTAINS UNBALANCED APOSTROPHES**

Explanation: An odd number of apostrophes is present in a parameter. If the parameter is a quoted string, it must have one apostrophe at each end of the string. If an apostrophe is to appear within the string,

two adjacent apostrophes must be entered. If the parameter is a hexadecimal value, it must be entered as X'hex characters'.

System Action: Processing for the command is terminated.

System Programmer Response: Correct the error, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9004I **KEYWORD** *keyword-name* **RANGE (c) INCORRECTLY SPECIFIED**

Explanation: The range for a keyword (specified in the message as 'keyword-name') was incorrectly specified using the syntax character specified in the message as 'c'. The standard syntax character used to denote a range is a colon (:). Either the ending limit of the range was omitted or a subset was specified within the range.

Examples of this error are LINE(1:) and GROUP(A*:B*).

Examples of a correctly specified range are LINE(1:3) and GROUP(A:B).

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *DB2 Command Reference* to verify that the command you are using allows a range for the given keyword. Correct the error, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9005I **KEYWORD** *keyword-name* **SUBSET (c) INCORRECTLY SPECIFIED**

Explanation: The subset for a keyword (specified in the message as 'keyword-name') was incorrectly specified for use with the syntax character 'c' in the message. The standard syntax character used to denote a subset is an asterisk (*).

For example, consider a group of objects named BLACK, BLUE, GREEN, RED, and WHITE. You may either explicitly specify BLACK and BLUE, or you may specify BL*, meaning all members of the group whose names begin with BL. The character that follows the asterisk must be a blank, comma, close parenthesis, or colon.

Examples of such an error are NAME(BL*CK) and NAME(*LUE).

Examples of correct specification are NAME(BL*) and UNIT(2*).

DSN9006I • DSN9010I

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *DB2 Command Reference* to be sure that the command you are using allows a subset for the named keyword. Correct the error, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSN9006I **KEYWORD** *keyword-name* **ASTERISK (c) INCORRECTLY USED**

Explanation: For the keyword specified in the message (as 'keyword-name'), an asterisk (c) was used as the first character of a parameter to specify ALL. However, the asterisk appears in a list, or the characters in juxtaposition are not a blank, comma, equal sign, or parentheses.

Examples of such errors are LINE(LINE1,*,LINE7), NAME(**), and GROUP(PQR:*)

Examples of correct specification are UNIT(*) and LINE=* etc.

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *DB2 Command Reference* to be sure the command you are using allows specification of ALL for the given keyword. Correct the error, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSN9007I **THIS COMMAND REQUIRES ONE OF THE FOLLOWING KEYWORDS BE SPECIFIED**, *keyword1 keyword2 keyword3 keyword4 keyword5 keyword6 keyword7 keyword8*

Explanation: One of the keywords identified in the list must be specified on this command, but none of these keywords was present.

System Action: Processing for the command is terminated.

System Programmer Response: Identify the appropriate keyword from the list, include that keyword, and reissue the command. Refer to *DB2 Command Reference* for descriptions of the keywords.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSN9008I **KEYWORD** *keyword-name* **MAY NOT BE NEGATED**

Explanation: The negation characters (NO) appear in front of the keyword (specified in the message as 'keyword-name'), but negating this keyword is not

allowed. As an example, consider a keyword called PRINT that could indicate that you want something printed. If you did not want the material to be printed, you might specify NOPRINT. This process of prefixing a keyword with the characters NO is called negation. While negation may be meaningful on some keywords, it is not allowed on all keywords.

System Action: Processing for the command is terminated.

System Programmer Response: Reenter the command, but do not negate the named keyword. Refer to *DB2 Command Reference* for further information concerning this command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9009I **KEYWORD** *keyword-name* **IS MISSING AND MUST BE SPECIFIED**

Explanation: The keyword specified in the message (as 'keyword-name') must be present, but it was not entered. This keyword must be present in order for the command to process properly.

System Action: Processing for the command is terminated.

System Programmer Response: Enter the command again, and include the specified keyword.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9010I **REQUIRED PARAMETER FOR KEYWORD** *keyword-name* **IS MISSING**

Explanation: A parameter must be specified for the keyword specified in the message (as 'keyword-name'), but no parameter was entered.

As an example of this error, consider a keyword called PRIORITY whose value can range from 0 to 9. Specification of PRIORITY(1) is acceptable, but, if you specify PRIORITY with no parameter value, the keyword is meaningless.

System Action: Processing for the command is terminated.

System Programmer Response: Supply appropriate parameters for the specified keyword and reissue the command. Refer to *DB2 Command Reference* for valid parameter values.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9011I PARAMETER(S) CANNOT BE SPECIFIED FOR KEYWORD
keyword-name

Explanation: No parameter(s) can be specified for the keyword specified in the message (as 'keyword-name'). You may have misspelled the keyword-name, causing it to be interpreted as a different keyword, or the parameter may actually belong with another keyword instead of the one on which you entered it.

System Action: Processing for the command is terminated.

System Programmer Response: Correct the error, and reissue the command. Refer to *DB2 Command Reference* for details on how to enter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9012I KEYWORD *keyword-name* PARAMETER(S) MUST BE HEXADECIMAL

Explanation: Parameter values for the keyword specified in the message (as 'keyword-name') must be hexadecimal values. The value must be specified as X'hex characters'. Hexadecimal characters are defined as the numeric digits 0 through 9 and the letters A through F. Either uppercase or lowercase is acceptable for the letters A through F.

As an example of this error, consider the keyword OFFSET, for which you are expected to enter a hexadecimal value. If you enter OFFSET(X'2C'), it is acceptable. However, entering OFFSET(Jones) is not acceptable.

System Action: Processing for the command is terminated.

System Programmer Response: Reissue the command, but ensure that the parameters for the named keyword are hexadecimal values.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9013I KEYWORD *keyword-name* PARAMETER *parameter value* EXCEEDS ALLOWABLE LENGTH OF *nn*

Explanation: The parameter value (specified in the message as 'parameter value') exceeds the limit of 'nn' characters in length.

As an example of this type of error, consider a PRIORITY keyword whose value may range from zero to nine. If you specify PRIORITY(21) or PRIORITY(006), the value you have entered exceeds the limit of one character.

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *DB2 Command Reference* for a list of acceptable parameters. Correct the error, and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9014I KEYWORD *keyword-name* LIMIT OF *nn* PARAMETER(S) EXCEEDED

Explanation: Too many parameters have been specified for the keyword that is specified in the message. The command processor does not accept more than the limit (specified in the message as 'nn') of parameters. This error is probably caused by entering too many parameters. It could also be caused by a missing close parenthesis that has not yet been detected.

System Action: Processing for the command is terminated.

System Programmer Response: Reissue the command, and enter no more than the specified limit of parameters for the given keyword. If necessary, issue the command more than once to process all the desired parameter values. Refer to *DB2 Command Reference* for further details.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9015I PARAMETER *parameter-value* IS UNACCEPTABLE FOR KEYWORD *keyword-name*

Explanation: The parameter value specified in the message is not an acceptable value for the named keyword.

As an example, consider a keyword called PRINT that can have parameters of YES or NO. Specification of PRINT(YES) or PRINT(NO) is valid. However, specification of PRINT(MAYBE) is unacceptable.

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *DB2 Command Reference* for a list of acceptable parameters. Correct and reissue the command.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9016I *verb-name* COMMAND REJECTED, UNAUTHORIZED REQUEST

Explanation: The command specified in the message (as 'verb-name') requires that you have proper authorization in order to use the command. You do not have the required authorization.

System Action: The command is not executed. Processing is terminated.

Operator Response: If the command must be executed on behalf of the user and your installation operating procedures permit it, enter the command on request.

System Programmer Response: Contact the system programmer responsible for system security, and request that this person grant you authorization to use the command. Otherwise, you must have someone who is authorized issue the command for you. If necessary, request the system operator to enter the command for you.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9017I FAILURE WHILE PROCESSING
verb-name pkw-name **COMMAND,**
PROCESSING TERMINATED

Explanation: The DB2 command processor has abended while processing the command (specified in the message as 'verb-name pkw-name'). The error is been recorded in SYS1.LOGREC, and an SVC dump is requested. The command may have partially completed. Refer to any prior response messages to determine what has been done.

System Action: Processing for the command is terminated.

Operator Response: If a dump was produced, have it printed. Print a copy of the contents of the SYS1.LOGREC data set for the time period involved. Forward these items with a copy of the system log to the system programmer.

System Programmer Response: Reissue the command. If a second failure occurs, consult your supervisor.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry. Contact the system operator to make sure that diagnostic information is forwarded to you.

DSN9018I csect-name ABORTING *verb-name*
PROCESSING DUE TO INSUFFICIENT
STORAGE AVAILABLE

Explanation: The command processor was unable to obtain sufficient storage to complete processing of any response messages generated by the invoked command.

System Action: Processing for the command is terminated abnormally.

Operator Response: Notify the system programmer before attempting to reissue the command.

System Programmer Response: Determine the

reason for insufficient storage available to the command. If a cursory examination of the system indicates that the region sizes for DB2 are sufficient, and the current workload does not seem excessive, then a MVS Console dump (MVS DUMP command) may be required.

Insure that any retry steps defined by the command are performed prior to reissuing the command.

Problem Determination: The invoked command had completed processing and returned to the Command Preprocessor when an attempt was made to obtain storage from the address space from which the command was entered. Since sufficient storage was unavailable, no response messages from the invoked command are available.

DSN9019I VERB *verb-name* **IS NOT A KNOWN**
COMMAND

Explanation: The command represented by the verb specified in the message is not known to the system; it is an undefined command. A possible cause for this error is that you made a spelling error while entering the command.

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *DB2 Command Reference* for the correct command format.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9020I ONLY ONE OF THE FOLLOWING
KEYWORDS MAY BE SPECIFIED ON
THIS COMMAND, *keyword1 keyword2*
keyword3 keyword4 keyword5 keyword6
keyword7 keyword8

Explanation: Only one of the identified keywords can be specified at the same time on this command.

System Action: Processing for the command is terminated.

System Programmer Response: Identify the appropriate keyword from the list, include only that keyword, and reissue the command. Refer to *DB2 Command Reference* for descriptions of the keywords.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9021I VERB *verb-name* **REQUIRED**
KEYWORD IS MISSING

Explanation: The command specified in the message (as 'verb-name') was entered, but at least one required keyword is missing. The command processor was unable to determine which keyword or keywords were missing.

System Action: Processing for the command is terminated.

System Programmer Response: Refer to *DB2 Command Reference* for the proper format of the named command, and then reenter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry. If a failure is suspected, take a storage dump.

DSN9022I *csect-name verb-name pkw-name*
NORMAL COMPLETION

Explanation: All synchronous processing for the command specified in the message as 'verb-name pkw-name' completed successfully. Any tasks executing asynchronously for the specified command might still be executing when this message is displayed.

System Action: Synchronous processing for the specified command is complete. Subsequent system actions defined by the command are documented in *DB2 Command Reference*.

DSN9023I *csect-name verb-name pkw-name*
ABNORMAL COMPLETION

Explanation: The command specified in the message as 'verb-name pkw-name' completed unsuccessfully. The command issued one or more error messages before this message. The name of the CSECT that issued the message is shown at the beginning of the message as a diagnostic aid.

System Action: Processing for the command ended.

System Programmer Response: Proceed as indicated by previous error messages.

DSN9024I **KEYWORD** *keyword-name* **PARAMETER**
MAY NOT SPECIFY A RANGE OF
VALUES

Explanation: The parameter of the keyword specified in the message specifies a range using the colon operator, (for instance, 1:3), but a range of values is not allowed.

As an example, consider a keyword called CLASS. You might enter CLASS(1,2,3) to specify classes 1, 2, and 3, or you might enter CLASS(1:3). However, not all commands allow you to specify a range of values.

System Action: Processing for the command is terminated.

System Programmer Response: Correct the keyword parameter, and reenter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

DSN9025I *csect-name verb-name pkw-name*
NORMAL COMPLETION FOR
SYNCHRONOUS PHASE, AND IN
PROGRESS FOR ASYNCHRONOUS
PHASE.

Explanation: All synchronous processing for the command specified as 'verb-name pkw-name' in this message completed successfully. Any tasks executing asynchronously for the specified command might still be executing when this message is displayed.

System Action: Synchronous processing for the specified command is complete. Subsequent system actions defined by the command that can occur during the asynchronous phase of command processing are documented in *DB2 Command Reference*.

DSN9026I **KEYWORD** *keyword-name*
PARAMETER(S) MUST BE
ALPHABETIC

DSN9027I **KEYWORD** *keyword-name*
PARAMETER(S) MUST BE
ALPHAMERIC

DSN9028I **KEYWORD** *keyword-name*
PARAMETER(S) MUST BE NUMERIC

Explanation: Parameter values for the keyword (specified on these messages) must be of a specific type, such as all ALPHABETIC or all ALPHAMERIC / NATIONAL characters, or all NUMERIC values.

As an example of this type of error, consider the keyword NAME, where you are expected to enter a person's last name. If you enter NAME(Jones) it is acceptable, but if you enter NAME(Jon4s), it is not acceptable.

As a second example, consider a keyword WEIGHT that specifies a numeric weight. Entering WEIGHT(47) is acceptable, but entering WEIGHT(4u) is not.

System Action: Processing for the command is terminated.

System Programmer Response: Reissue the command but ensure that the parameters for the named keyword are of the required type.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

DSN9029I *csect-name* **FAILURE WHILE**
PROCESSING A COMMAND

Explanation: A failure has been encountered while processing a command. The command may or may not have been executed. The error has been recorded in the system error log (the SYS1.LOGREC data set), and an SVC dump was attempted.

System Action: Processing for the command is terminated.

Operator Response: If a dump was produced, have it printed. Print a copy of the contents of the SYS1.LOGREC data set for the time period involved. Forward these items with a copy of the system log to the system programmer.

System Programmer Response: Reissue the command. If a second failure occurs, consult your supervisor or the system programmer.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry. Contact the system operator to make sure that diagnostic information is forwarded to the system programmer.

**DSN9030I KEYWORD *keyword-name* PARAMETER
MAY NOT SPECIFY A SUBSET OF
VALUES**

Explanation: The parameter for the keyword specified in the message identifies a subset using the asterisk operator (for instance, ABC*, *ABC, or *ABC*DEF*), but using a subset is not allowed for this command.

As an example, consider a keyword called NAME, for which you can specify people's names. You might specify NAME(ROBERT ROBERTS ROBERTSON) to enter three names, or you might specify NAME(ROB*) to indicate all names that begin with the characters ROB. NAME(*BERT*) could also be specified to indicate all names that contain the characters BERT within the name. However, not all commands allow you to specify a subset of values in this way.

System Action: Processing for the command is terminated.

System Programmer Response: Correct the keyword parameter, and reenter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

**DSN9031I SYNTAX ERROR DETECTED
FOLLOWING KEYWORD *keyword-name***

Explanation: The text that follows the named keyword contains invalid syntax.

As an example, consider specification of CLASS==A. The double equal signs do not conform to the rules of syntax and make the keyword meaningless. This is just one example of invalid syntax. It is not practical to try to illustrate every possible error here. You could, however, correctly specify CLASS=A or CLASS(A).

System Action: Processing for the command is terminated.

System Programmer Response: Examine the text following the named keyword to ensure that no errors were made as the command was entered. Ensure that

you have followed the rules for command entry, and reenter the command.

Problem Determination: Obtain a copy of the system or terminal log to verify command entry.

**DSN9032I REQUESTED FUNCTION IS NOT
AVAILABLE**

Explanation: An attempt was made to invoke a command processor that was not loaded. An example of this is invoking -START DDF or -STOP DDF when DDF is not loaded (not selected during the installation process).

System Action: The requested function is not performed.

User Response: Determine what function was requested. Do not invoke this function until DB2 is reinstalled and DDF is selected.

Problem Determination: Look at the console log to determine which command caused the error.

**DSN9033I KEYWORD *name1* REQUIRES
KEYWORD *name2***

Explanation: When keyword 'name1' is specified, keyword 'name2' must also be specified.

System Action: Processing for the command terminates.

User Response: Resubmit the command with the missing keyword.

Problem Determination: Obtain a copy of the system or terminal log to verify the command entry.

**DSN9034I THE TOTAL LENGTH OF COMMAND
RESPONSE MESSAGES EXCEEDED
ITS LIMIT. DISPLAY IS TERMINATED.**

Explanation: The total length of all response messages returned from a single DB2 command exceeded the internal limit set by the system. The message chain was truncated. This message was appended at the end of the chain to inform the user of the termination of the report.

**DSN9038I *csect-name* COMMAND REJECTED
BECAUSE DB2 WAS RESTARTED IN
LIGHT MODE**

Explanation: This command is not allowed when the DB2 member has been restarted with the LIGHT(YES) parameter.

System Action: Command processing is halted.

System Programmer Response: Refrain from issuing this command on this DB2 member until after the member has been restarted without LIGHT(YES). If the command has group scope, then you may be able to

| issue the command to a different DB2 member in the
| group.

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Chapter 31. DB2 codes

This section contains DB2 abend reason codes and reason codes. In addition, this section contains DB2 instrumentation facility interface reason codes.

Conventions used in DB2 abend reason codes are described in Part 1, "Introduction," on page 1.

Chapter 32. X'C1.....' codes

00C10002

Explanation: The DB2 call attachment facility control block (the CAB) indicated that a thread was present when it should not have been present.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: Notify your system programmer.

System Programmer Response: Collect a DSNTRACE trace stream and request a SYSABEND or SYSUDUMP dump.

Problem Determination: This is probably a call attachment facility error.

00C10003

Explanation: The DB2 call attachment facility received control after a nonstandard entry that did not use the call attachment facility language interface.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: Modify or repair your application so that DSNACA00, the main call attachment facility code will receive control only through the language interface.

Problem Determination: This is probably a user error.

00C10004

Explanation: The call attachment facility encountered an error retrieving a trace message during processing of a call attachment facility request.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: Notify your system programmer.

System Programmer Response: Collect a DSNTRACE trace stream and request a SYSABEND or SYSUDUMP dump.

Problem Determination: This is probably a call attachment facility error.

00C10005

Explanation: The application program passed an ECB address of 0 to the call attachment facility on a CONNECT call. The trace message preceding the abend indicates whether the ECB was a start-up or termination ECB.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: Correct the application program that

makes the CONNECT call to DSNALI. Ensure that the CONNECT call uses a valid ECB address.

Problem Determination: See the Explanation above.

00C10201

Explanation: The application program passed two CONNECT calls to the call attachment facility (CAF) from the same TCB. The first CONNECT could have been either implicit or explicit.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10202

Explanation: The application program passed two OPEN commands to the call attachment facility (CAF) from the same TCB. The first OPEN could have been either implicit or explicit.

This abend reason code is issued by the following CSECT: DSNACA00.

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10203

Explanation: A CLOSE command was issued when there was no active OPEN.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10204

Explanation: A DISCONNECT command was issued when there was no active CONNECT.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10205

Explanation: A TRANSLATE command was issued when the DB2 subsystem was not connected to the call attachment facility (CAF).

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10206

Explanation: One of the following conditions exists:

- The wrong number of parameters were issued.
- The end-of-list bit was off.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10207

Explanation: The application program passed an unrecognized function parameter to the call attachment facility (CAF).

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10208

Explanation: The call attachment facility (CAF) received requests from the same TCB to CONNECT to the DB2 subsystem and to another subsystem.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

Problem Determination: See the Explanation above.

00C10209

Explanation: The call attachment facility (CAF) received an explicit call to DSNALI from a DB2 stored procedure. This is not allowed.

This abend reason code is issued by the following CSECT: DSNACA00

User Response: You can continue processing with a corrected request.

00C10824

Explanation: The CAB is reset and a new connection may be made.

This abend reason code is issued by the following CSECT: DSNACA70

User Response: You can continue processing.

Problem Determination: See the Explanation associated with message DSNA824I.

00C10831

Explanation: The call attachment facility (CAF) has detected a release level incompatibility between itself and DB2. Either the current CAF or DB2 release levels do not support coexistence, or the SPE level of the lower level release does not meet the compatibility requirements for coexistence between the two releases.

This reason code is issued by the following CSECT: DSNACA70

System Action: The connection is not successful.

User Response: If you used JCL or a TSO logon procedure to invoke CAF, check to insure the correct DB2 libraries are defined in your JOBLIB and STEPLIB allocations. See your system programmer if you invoke CAF using procedures supplied by your system programmer.

Problem Determination: If CAF trace (DSNTRACE) is active, message DSNA831E will indicate the release levels of CAF and the DB2 subsystem.

00C12001

Explanation: The DB2 RRSF attachment facility function AUTH SIGNON was invoked by a program that was not APF authorized. This condition can indicate a security violation.

System Action: The application is abended.

User Response: The AUTH SIGNON function can only be invoked from an APF authorized program. Either modify your program to use the RRSF attachment facility function SIGNON which may be invoked from a non-authorized program, or contact your security administrator to make the changes required to make your program an APF authorized program.

Problem Determination: This is a user error.

This abend reason code is issued by the following CSECT: DSNARA00

00C12002

Explanation: An abend has occurred during an attempt to access the caller-provided subsystem name parameter while executing in the PSW key of the caller.

This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12003

Explanation: An abend has occurred during an attempt to access the caller-provided *ribptr* parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12004

Explanation: An abend has occurred during an attempt to access the caller-provided *eibptr* parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12005

Explanation: The DB2 RRSF attachment facility received control after a nonstandard entry that did not use the call attachment facility language interface.

System Action: The application is abended.

User Response: Modify or repair your application so that DSNACA00, the main call attachment facility code, will receive control only through the language interface.

Problem Determination: This is probably a user error.

This abend reason code is issued by the following CSECT: DSNARA00

00C12006

Explanation: An abend has occurred during an attempt to access the caller-provided termination ECB parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12007

Explanation: An abend has occurred during an attempt to access the caller-provided startup ECB parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12008

Explanation: An abend has occurred during an attempt to access the caller-provided correlation parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12009

Explanation: An abend has occurred during an attempt to access the caller-provided accounting token parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12010

Explanation: An abend has occurred during an attempt to access the caller-provided accounting interval parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed

in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12011

Explanation: An abend has occurred during an attempt to access the caller-provided authid parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12012

Explanation: An abend has occurred during an attempt to access the caller-provided secondary authid parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12013

Explanation: An abend has occurred during an attempt to access the caller-provided ACEE parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12014

Explanation: An abend has occurred during an attempt to access the caller-provided plan name parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12015

Explanation: An abend has occurred during an attempt to access the caller-provided collection parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12016

Explanation: An abend has occurred during an attempt to access the caller-provided reuse parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

This abend reason code is issued by the following CSECT: DSNARA00

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00C12018

Explanation: An abend has occurred during an attempt to access the caller-provided user-id parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

00C12019

Explanation: An abend has occurred during an attempt to access the caller-provided applname parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register

00C12020 • 00C12206

indicates which parameter caused the error.

00C12020

Explanation: An abend has occurred during an attempt to access the caller-provided ws parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs, this register indicates which parameter caused the error.

00C12021

Explanation: An abnormal termination has occurred during an attempt to access the caller-provided xid parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abnormally terminated.

User Response: Correct the problem and submit your job again.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. Register 15 indicates which parameter caused the error when any abnormal termination occurs.

00C12024

Explanation: While executing in the PSW key of the caller, an abend occurred during an attempt to access the accounting-string parameter that was provided by the caller. This is probably the result of a logic error in the requesting program.

System Action: The application is abended.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to information that was provided by the caller. When any abend occurs, this register indicates which parameter caused the error.

00C12201

Explanation: The application program invoked IDENTIFY while it was already connected to DB2.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12202

Explanation: The application program invoked the CREATE THREAD function request while there was already a thread created.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12203

Explanation: A TERMINATE THREAD command was issued when there was no active thread.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12204

Explanation: The application issued a function request other than IDENTIFY when no connection with DB2 existed. Only IDENTIFY may be issued when a connection does not exist.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12205

Explanation: The task that invoked the DB2 RRSF attachment facility function SWITCH TO has not yet identified to the DB2 subsystem specified in the request.

System Action: The SWITCH TO function is performed.

User Response: Use IDENTIFY to connect to a DB2 subsystem before attempting to invoke any other function at the specified subsystem.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12206

Explanation: One of the following conditions exists:

- The wrong number of parameters were issued.
- The end-of-list bit was off.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12207

Explanation: The application program either omitted the function name parameter or passed an unrecognized function parameter to the RRSAF.

System Action: The application is abended.

User Response: Modify or repair your application to pass a valid function request to RRSAF.

00C12208

Explanation: The application program issued an IDENTIFY function request but omitted the *ribptr* parameter from the parameter list. An *ribptr* parameter is a required parameter on an IDENTIFY request.

System Action: The IDENTIFY request is rejected.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12209

Explanation: The application program issued an IDENTIFY function request but omitted the *eibptr* parameter from the parameter list. An *eibptr* parameter is a required parameter on an IDENTIFY request.

System Action: The IDENTIFY request is rejected.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12212

Explanation: The application program issued a CREATE THREAD function request and did not specify a plan name and also did not specify a collection name. If a plan name is not provided, then a collection name must be supplied.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12214

Explanation: The application program issued a TRANSLATE function request but omitted the *sqlca* parameter from the parameter list. An *sqlca* parameter is a required parameter on a TRANSLATE request.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued

by the following CSECT: DSNARA00

00C12217

Explanation: The application program issued a CREATE THREAD function request without having completed SIGNON processing. At least one successful SIGNON must be completed before a CREATE THREAD request can be issued.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12219

Explanation: The application program issued an SQL or IFI function request without completing CREATE THREAD processing. SQL or IFI requests cannot be issued until CREATE THREAD processing is complete.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12221

Explanation: The application program issued a CALL DSNRLI with function SET_CLIENT_ID without completing CREATE THREAD processing. SET_CLIENT_ID requests cannot be issued until CREATE THREAD processing is complete.

SET_CLIENT_ID requests are permitted after a plan is allocated, however.

User Response: You can continue processing with a corrected request.

00C12822

Explanation: The RRSAF received an explicit call to DSNRLI from a DB2 stored procedure. This is not allowed.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12823

Explanation: An attempt was made to initiate a stored procedure for a task, but one already exists. This is not allowed.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued

00C12824 • 00C12831

by the following CSECT: DSNARA00

00C12824

Explanation: The previous connection to DB2 has been terminated. Cleanup processing was performed and the RRSF is now ready to process additional IDENTIFY requests.

User Response: You can continue processing, and issue an IDENTIFY request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12825

Explanation: An attempt was made to terminate a stored procedure for a task, but no stored procedure exists. This is not allowed.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSNARA00

00C12831

Explanation: The release of the RRSF code is not compatible with the earlier release of the DB2 program.

System Action: The connection is not made.

User Response: Ensure that the release of the RRSF library is not later than the release of DB2 to which you are attempting to connect.

Problem Determination: This problem can be caused by improper DB2 data set allocation in a LOGON procedure or CLIST.

This reason code is issued by the following CSECT: DSNARA70

Chapter 33. X'C2.....' codes

00C20021

Explanation: A member of a DB2 data sharing group was unable to perform a global drain because a physical close failure occurred in a peer DB2 due to an exceptional state or CASTOUT process failure. DSNT501I is sent to the console to report the condition.

System Action: A 'resource not available' return code, reason code, and object name are sent back to the requesting function.

This returned reason code is issued by the following CSECT: DSNB1LDA

00C20031

Explanation: An attempt to acquire a page latch in either shared mode or exclusive mode was rejected due to a time-out on the agent's wait time.

System Action: A 'resource not available' return code, reason code, and object name are sent back to the requesting function.

System Programmer Response: A diagnostic dump with reason code 00C2010F should follow 00C20031.

This reason code is issued by the following CSECTs: DSNB1LTX, DSNB1LTS

00C20069 .

Explanation: DB2 is unable to perform the drain function on an object (a table space, an index space, or a partition) because a DB2 member in the data sharing group was in the process of restarting.

System Action: If the problem was encountered by DB2 when trying to automatically recover a group buffer pool recovery pending (GRECP) object following the failure of a group buffer pool (GBP), then DB2 issues message DSNB350I or DSNB351I to the console with this reason code indicating that the object cannot be automatically recovered.

Otherwise, a 'resource not available' return code, reason code and object name are sent back to the requesting function. DSNT501I is sent to the console to report the condition.

System Programmer Response: If DSNB350I or DSNB351I messages were issued, wait for the failed DB2 member to complete its restart processing and then recover the GRECP objects as indicated in the "System Programmer Response" for DSNB350I or DSNB351I.

00C2006A

Explanation: DB2 was unable to perform the drain function on an object (table space, index space, or partition) because the object was held by one or more indoubt threads.

System Action: If the problem was encountered by DB2 when trying to automatically recover a group buffer pool recovery pending (GRECP) object following the failure of a group buffer pool (GBP), then DB2 issues message DSNB350I or DSNB351I to the console with this reason code indicating that the object cannot be automatically recovered.

System Programmer Response: Use the DB2 DISPLAY DB CLAIMERS command to find the indoubt threads. If the threads have been left indoubt because DB2 or a transaction manager was unable to automatically resolve the indoubts, you can use the DB2 RECOVER INDOUBT command to resolve the indoubt thread and remove the indoubt claimer on the object (the DB2 RECOVER INDOUBT command should only be used when automatic resolution does not work).

If DSNB350I or DSNB351I messages were issued, then after you resolve the indoubt threads, recover the GRECP objects as indicated in the "System Programmer Response" for DSNB350I or DSNB351I.

00C200A1

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is trying to release a page latch that is not currently held.

This abend reason code is issued by the following CSECTs:

DSNB1REL	DSNB1RWI	DSNIB	DSNICLAP
DSNICUMW	DSNICUR	DSNIDILS	DSNIDLEO
DSNIFFRE	DSNIFNP	DSNIGLOK	DSNILGBW
DSNILREP	DSNILSMG	DSNIMSCU	DSNIMS1W
DSNIOSL2	DSNIOW	DSNIPOCI	DSNIRELS
DSNIRELU	DSNIREPR	DSNIRFNX	DSNISEGD
DSNISEGF	DSNISFS	DSNISFXL	DSNISGAU
DSNISGFO	DSNISGNS	DSNISGRT	DSNISGSU
DSNISMFO	DSNISMRT	DSNISMSU	DSNIUPPR
DSNIUSME	DSNI1OP		

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C200A2 • 00C200A5

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200A2

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is trying to get a page latch that is currently held on the requesting page.

This abend reason code is issued by the following CSECTs:

DSNB1GET	DSNB1SWS	DSNB1GNV	DSNBLTCH
DSNIB	DSNICLAP	DSNICUMW	DSNICUR
DSNIDEFR	DSNIFFRE	DSNIFNP	DSNIGLOK
DSNILSMG	DSNILSMU	DSNIMS1W	DSNIRELS
DSNIRELU	DSNIREPR	DSNIRFNX	DSNIRNXT
DSNISEGF	DSNISFS	DSNISFXL	DSNISGAU
DSNISGFO	DSNISGNS	DSNISGRT	DSNISMRT
DSNIUSME	DSNI1OP		

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200A3

Explanation: This is a DB2/MVS internal error. The execution unit driving a buffer manager (BM) asynchronous function, which would normally run indefinitely, has been canceled. However, work being done by the execution unit is allowed to complete before the execution unit terminates.

This abend reason code is issued by the following CSECTs:

DSNB1CMS	DSNB5COM	DSNB5RAP
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System Action: The affected asynchronous function is terminated. If the affected function is the deferred write processor (DSNB1CMS), DB2 is abended with the abend code '00C200D3'.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Start DB2 if it is abended.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem

determination," on page 1353: 1, 2, 5.

00C200A4

Explanation: This code usually indicates a problem internal to DB2; however, the problem can result from errors in other products. An unexpected reason code was returned by the media manager function when it was invoked to process a database I/O request.

System Action: The requesting execution unit is abended.

User Response: Notify the system programmer and rerun the application.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The unexpected media manager reason code is saved in register 8.

Check the MVS console log for an IOS error message indicating the type of I/O error that occurred. If an IOS message was issued, follow the problem determination directions for that message.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 10, 12.

This abend reason code is issued by the following CSECTs:

DSNB5COM	DSNB5FOR	DSNB5RAP	DSNB5RDP
DSNB5PCO			

00C200A5

Explanation: Typically, this indicates a problem internal to DB2; however, the problem can result from errors in other products. DB2 was unable to drain a pageset in preparation for page set cleanup processing. This might be caused by one of the following:

- An IRLM out-of-storage condition
- An internal error in the lock acquisition function

This abend reason code is issued by the following CSECT: DSNB1CFC

System Action: The execution unit driving this function proceeds normally. The abend status is recorded in SYS1.LOGREC.

Operator Response: Notify the system programmer and print the SYS1.LOGREC.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and

reporting the problem. Restart DB2.

Problem Determination: The unexpected reason code returned by the drain function in register 8 might help determine the cause of the problem. If the problem is caused by an unavailable DB2 resource, message DSNT500I might also be issued.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00C200A6

Explanation: This is a DB2/MVS internal error. The execution unit scheduled by the buffer manager (BM) subcomponent of DB2 to drive the page set cleanup function has been canceled.

This abend reason code is issued by the following CSECT: DSNB1CFC

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Refer to similar reason code '00E50013'.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200A8

Explanation: An error code other than timeout, insufficient storage, or an MVS system error was returned by the IRLM LOCK request invoked by DB2 to acquire any of the following locks:

- SYSLGRNG or SYSLGRNX recording lock on a table space
- Group buffer pool-dependent conversion lock on a page set or partition
- Group buffer pool start or stop lock
- ALTER BUFFERPOOL lock

This is a DB2 or IRLM internal error.

System Action: The requesting execution unit abends.

User Response: Notify the system programmer and rerun the application.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs: DSNB1SCR, DSNB1DLK

00C200A9

Explanation: A return code greater than 4 was returned by the IRLM UNLOCK request invoked by DB2 to release any of the following locks:

- SYSLGRNG or SYSLGRNX recording lock on a table space
- Group buffer pool dependent conversion lock on a page set or partition
- Group buffer pool start or stop lock
- ALTER BUFFERPOOL lock.

This is a DB2 or IRLM error.

System Action: The requesting execution unit is abended.

User Response: Notify the system programmer and rerun the application.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The unexpected IRLM reason code is saved in register 8. It might help determine the cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNB1SCR, DSNB1DLK

00C200AA

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is trying to change a page latch type, but the requesting agent already holds this latch type on this page.

This abend reason code is issued by the following CSECT: DSNBCLTH

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200AB

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is trying to get another page latch, which would cause the total number of page latches held by the caller to exceed the maximum allowable number of 2.

This abend reason code is issued by the following CSECTs: DSNBLTCH DSNB2LTH

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200AD

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is trying to get a page latch for a page that belongs to one type of page set (index or data). However, the caller already holds a page latch on another page that belongs to a different type of page set.

This abend reason code is issued by the following CSECT: DSNB2LTH

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200AE

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is trying to get a page latch on a page for which there are latch waiters, but no latch holders.

This abend reason code is issued by the following CSECTs: DSNB1LTS DSNB1LTX

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200AF

Explanation: This is a DB2 internal error. The caller of the buffer manager(BM) is attempting to update a page under the critical mode without holding an exclusive latch on the page.

This abend reason code is issued by the following CSECT: DSNB1SWS

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200B0

Explanation: Typically, this indicates a problem internal to DB2, however the problem can result from errors in other products. The buffer address passed by the buffer manager (BM) invokers does not contain the requested page. The buffer manager detected this error by comparing the information stored in the buffer control block (BB) with the information passed with the buffer manager by its invokers. The information that is compared is the page set piece block, the page number, and the buffer address.

This abend reason code is issued by the following CSECTs:

DSNB1REL	DSNB1RWI	DSNB1SWS
DSNB1GNV	DSNB5COM	

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination:

The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
7	Address of the page buffer
8	Address of the page set block (PB)

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 10, 12.

00C200B1

Explanation: This is a DB2 internal error. Either the buffer manager (BM) subcomponent of DB2 is unable to locate the requesting page in the buffer pool or the invoker of the buffer manager is attempting to decrease the buffer use count which is already 0.

This abend reason code is issued by the following CSECTs:

DSNB1REL	DSNB1RWI	DSNB1SWS
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System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200B2

Explanation: This is a DB2 internal error. The buffer's write intent count is already 0 and the buffer manager (BM) invoker is attempting to decrease it.

This abend reason code is issued by the following CSECT: DSNB1RWI

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200B3

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 is unable to open a page set required by the requesting function. The page size or the page set piece size passed by the

buffer manager invoker is invalid. The page set piece size is expressed by n, where 2 to the power of n is the total number of pages that can be contained within a page set piece. This error was detected during open page set processing.

This abend reason code is issued by the following CSECT: DSNB1OPS.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200B4

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 is unable to open a page set required by the requesting function. The highest page set piece number passed by the buffer manager invoker exceeds the maximum value allowed. The maximum number of data sets that can be defined for a given page set is dependent on the page set piece size. This error was detected during open page set processing.

This abend reason code is issued by the following CSECT: DSNB1OPS

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200B5

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 is unable to open a page set required by the requesting function. During the open page set processing, the page set options passed by the buffer manager invoker were in conflict with the same page set that was opened earlier. The page set options are the writing protocol (SYSTEM or UW), the recovery option (recoverable or unrecoverable), and the page size.

This abend reason code is issued by the following CSECT: DSNB1OFA

00C200B6 • 00C200BB

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200B6

Explanation: Typically, this indicates a problem internal to DB2; however, the problem can result from errors in other products. The buffer manager (BM) subcomponent of DB2 is unable to reallocate a data set that is required after extending a data set to a new volume. The data set reallocation was requested and the corresponding data set was not opened. This error was detected during open page set piece processing.

This abend reason code is issued by the following CSECT: DSNB1OPP

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 10, 12.

00C200B7

Explanation: Typically, this indicates a problem internal to DB2; however, the problem can result from errors in other products. The buffer manager (BM) subcomponent of DB2 is unable to open a page set required by the requesting function. The linear page set was not formatted contiguously. This error was detected during open page set processing.

This abend reason code is issued by the following CSECT: DSNB1OPS

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 10, 12.

00C200B8

Explanation: This is a DB2 internal error. DB2 is unable to update the SYSLGRNG or SYSLGRNXpage set. The utility returned an unexpected reason code.

This abend reason code is issued by the following CSECT: DSNB1SWS

System Action: A 'resource not available' code is returned. This reason code and the table space name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00C200BA

Explanation: This is a DB2 internal error. DB2 has encountered an unexpected error while attempting to access a system page of a page set.

This abend reason code is issued by the following CSECTS: DSNB1CPP, DSNB1OPP

System Action: The requesting execution unit is abended. The SVC dump and the SYS1.LOGREC recording are requested.

Operator Response: Notify the system programmer, print the SYS1.LOGREC and the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for failure for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200BB

Explanation: This is a DB2 internal error to indicate that an invalid buffer pool ID is specified.

This abend reason code is issued by the following CSECT: DSNBRBPA

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 2, 5.

00C200BC

Explanation: This is a DB2 internal error. The Buffer Manager (BM) subcomponent of DB2 has discovered that the BM invoker is attempting to release the page which does not belong to the work file database.

This abend reason code is issued by the following CSECT: DSNB1REL

System Action: The requesting execution unit is abnormally terminated.

Operator Response: Notify the system programmer, and print the SYS1.LOGREC and the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 5.

00C200BD

Explanation: This is a DB2 internal error. The caller of the buffer manager (BM) is still holding a page latch on the page which is currently being released by the application.

This abend reason code is issued by the following CSECT: DSNB1REL

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 2, 5.

00C200BE

Explanation: This is a DB2 internal error. The buffer manager (BM) is trying to dequeue a page latch waiter from the wait queue, but there are no waiters.

This abend reason code is issued by the following CSECTs: DSNB1CLT DSNB1ULT

System Action: The requesting application process is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 2, 5.

00C200C0

Explanation: DB2 is unable to perform I/O processing for the requesting function. An error code (other than a permanent I/O error) was returned by the media manager during the I/O backend processing.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The unexpected media manager reason code is saved in register 8. It might help determine the cause of the failure.

Check the MVS console log for an IOS error message indicating the type of I/O error that occurred. If an IOS message was issued, follow the problem determination directions for that message.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 2, 5, 10, 12.

This abend reason code is issued by the following CSECTs:

DSNB5COM DSNB5FOR DSNB5RAP DSNB5PCO
DSNB5RDP

00C200C1

Explanation: The page version number in the database page header is outside the valid range of values. This can be caused by one of the following:

- Copying data sets improperly from another DB2 subsystem.
- In a CREATE TABLESPACE statement, specifying a VCAT catalog name that is the same as the name of an object in another DB2 subsystem on the same processor.
- Conditionally starting DB2 to a prior time with an invalid RBA range.
- Incorrect use of the REPAIR utility (modifying the page RBA).
- The page was damaged by a DB2 system error.

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- TOD clock values are out of synch between systems in a Parallel Sysplex.

System Action: The requesting execution unit is abended. If DSNB1SWS issues the ABEND, then it is preceded by a DSNT500I message indicating which page is in error and a DSNI004I message indicating the page set is put in STOPE mode.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

User Response: One of the following:

- If the data set was copied from another DB2 subsystem, run DSN1COPY with the RESET option to set the log RBAs in each page to 0.
- If a table space was created with the wrong VCAT catalog name, drop the object and create it again.
- If DB2 was conditionally started with an invalid RBA range, correct the RBA range and restart DB2 with conditions again.
- If the page was damaged by the REPAIR utility, restore it with the RECOVER utility using the PAGE option.
- If you are running data sharing, check the connectivity of the systems to the sysplex timers. The TOD clock values of all systems in the sysplex should all be within one microsecond. TOD clock values will not drift more than one microsecond apart unless a sysplex timer is malfunctioning.
- Otherwise, inform your system programmer that you suspect an error.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
7	Address of the page buffer
8	Address of the page set block (PB)

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 13, 33.

This abend reason code is issued by the following CSECT: DSNB1SWS.

00C200C2

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 has discovered that the BM invoker is attempting to decrease the page's write intent count (WIC), but the invoker has no write intent request outstanding.

This abend reason code is issued by the following CSECT: DSNB1RWI

System Action: The BM does not decrease the page's WIC as requested, and the execution unit driving this function is abended. An SVC dump is requested and the abend status is recorded in the SYS1.LOGREC.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 13, 19, 33.

00C200C3

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 discovered that the BM invoker is attempting to set the page's write intent count (WIC), but the invoker has no read intent request outstanding.

This abend reason code is issued by the following CSECT: DSNB1SWS

System Action: The BM does not increase the page's WIC as requested, and the execution unit driving this function is abended. An SVC dump is requested and the abend status is recorded in the SYS1.LOGREC.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 19, 33.

00C200C5

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 discovered that its invoker was attempting to decrease the write dependency count (WDC) for a buffer. However, the buffer contains database updates that have not yet been written back to DASD. The buffer manager makes the buffer available for reassignment.

This abend reason code is issued by the following CSECTS: DSNB1REL DSNB1RWI

System Action: The buffer manager does not decrease the WDC as requested, and the execution unit driving this function proceeds normally. An SVC dump is requested and the abend status is recorded in SYS1.LOGREC.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 13, 19, 33.

00C200C6

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 has discovered that the BM invoker is attempting to release a page that was not held by the invoker or the page has an unbalanced write intent (for example, reset write intent has not yet been issued prior to releasing the page).

This abend reason code is issued by the following CSECTs: DSNB1REL DSNB1RWI

System Action: The BM does not release the page as requested, and the execution unit driving this function terminates abnormally. An SVC dump is requested and the abend status is recorded in the SYS1.LOGREC.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 13, 19, 33.

00C200C7

Explanation: An error code, other than timeout, insufficient storage, or MVS system error, was returned by the IRLM LOCK request. The IRLM LOCK request was invoked to acquire an open lock to perform a physical open or close.

This abend reason code is issued by the following CSECT: DSNB1LCK

System Action: The requesting execution unit is abended.

User Response: Rerun the application.

Operator Response: Print the SYS1.LOGREC and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The unexpected IRLM reason code is saved in register 8. It may help determine the cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200C8

Explanation: A return code greater than 4 was returned by the IRLM UNLOCK request invoked to release a open lock after completing a physical open or close.

This abend reason code is issued by the following CSECT: DSNB1ULK

System Action: The requesting execution unit is abended.

User Response: Rerun the application.

Operator Response: Print the SYS1.LOGREC and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The unexpected IRLM reason code is saved in register 8. It may help determine the cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200C9

Explanation: The buffer manager (BM) subcomponent of DB2 discovered a damaged PBG control block while attempting to write a check point log record.

This abend reason code is issued by the following CSECT: DSNB1CHK

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 33.

00C200CB

Explanation: The buffer manager (BM) subcomponent of DB2 discovered a damaged ABG or AB control block while attempting to write a checkpoint.

This abend reason code is issued by the following CSECT: DSNB1CHK

System Action: DB2 is abnormally terminated; if processing were to continue, an invalid checkpoint

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would be created which would damage data on a subsequent DB2 restart.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00C200CC

Explanation: The buffer manager (BM) subcomponent of DB2 discovered a close task has been waiting for prefetch to complete for two checkpoints.

This abend reason code is issued by the following CSECT: DSNB1CHK

System Action: An SVC dump is produced and checkpointing continues.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200CE

Explanation: This is a DB2 internal error. An agent, which was suspended while awaiting completion of a database I/O, was invalidly resumed by someone other than the initiator of the I/O.

System Action: An SVC dump is taken. The affected agent re-suspends to await the completion of the I/O, and will continue executing normally.

System Programmer Response: Refer to Section 3 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00C200CF

Explanation: DB2 could not acquire enough virtual storage for allocating private buffers for an internal castout process. The castout operation is queued until an existing castout process becomes available.

System Action: The requesting execution unit is abended. No dump is produced.

Problem Determination: This abend reason code is issued by the following CSECT: DSNB5PCO

00C200D0

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to perform I/O processing for the requesting function. A prior abend has occurred in the buffer manager (BM) I/O termination exit routine. Retry of the prior abend is not allowed by MVS.

This abend reason code is issued by the following CSECT: DSNB5UTX

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The functional recovery routine (FRR) parameter list was recorded in the SDWA variable recording area (VRA) when the original abend occurred. Examine the VRA to determine whether the media manager request block (MMRB) is properly passed by the media manager.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200D1

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to perform I/O processing for the requesting function. A prior abend has occurred in the buffer manager I/O termination exit routine. An attempt to retry and to continue main line processing (after completion of processing of this prior abend) resulted in recursion to the I/O termination exit routine's functional recovery routine (FRR).

This abend reason code is issued by the following CSECT: DSNB5UTX

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

Problem Determination: The FRR parameter list was recorded in the SDWA variable recording area (VRA) when the original abend occurred. Examine the VRA to

determine whether the media manager request block (MMRB) is properly passed by the media manager.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200D2

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to perform I/O processing for the requesting function. A prior abend has occurred in the buffer manager I/O error exit routine during processing of a database I/O error.

This abend reason code is issued by the following CSECT: DSNB5UEX

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The functional recovery routine (FRR) parameter list was recorded in the SDWA variable recording area (VRA) when the original abend occurred. Examine the VRA to determine whether the media manager request block (MMRB) is properly passed by the media manager. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200D3

Explanation: A prior abend occurred in a 'must complete' processing window of a buffer manager (BM) function.

This abend reason code is issued by the following CSECT: DSNB1RRR

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See the Problem Determination section of the original abend code.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200D4

Explanation: A prior abend occurred in an I/O processing window of a buffer manager (BM) function. I/O functional recovery cannot be reliably performed because the tracking data required to do so is incomplete. The required data is probably missing because the functional recovery routine (FRR) that is protecting the abending I/O processing function was bypassed by MVS.

This abend reason code is issued by the following CSECT: DSNB1RRR

System Action: DB2 is abended.

Operator Response: Notify the system programmer, and print the SYS1.LOGREC and the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See the Problem Determination section of the original abend code.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200D5

Explanation: An abend occurred in the I/O termination exit routine while resuming the suspended execution unit. The status of resume was 'indoubt' at the time of the abend.

This abend reason code is issued by the following CSECT: DSNB5UTX

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The functional recovery routine (FRR) parameter list was recorded in the SDWA variable recording area (VRA) when the original abend occurred. Examine the VRA to determine whether the media manager request block (MMRB) is properly passed by the media manager. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C200D6 • 00C200E1

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200D6

Explanation: An abend occurred in the I/O termination exit routine while resuming the suspended execution unit. The status of resume was 'indoubt' at the time of the abend.

This abend reason code is issued by the following CSECT: DSNB5UTX

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The functional recovery routine (FRR) parameter list is recorded in the SDWA variable recording area (VRA) when the original abend occurred. Examine the VRA to determine whether the media manager request block (MMRB) is properly passed by the media manager. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200D7

Explanation: A prior abend occurred while resuming a suspended execution unit. The status of resume was 'indoubt' at the time of the abend.

This abend reason code is issued by the following CSECT: DSNB1RRR

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See the Problem Determination section of the original abend code.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200D8

Explanation: This is a DB2 internal error. The buffer manager (BM) subcomponent of DB2 discovered that some buffer manager resources are inconsistent.

This abend reason code is issued by the following CSECTs: DSNB5COM DSNB1CMS

System Action: DB2 is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00C200E0

Explanation: A table space or index space cannot be accessed because DB2 is unable to create the referenced buffer pool. The referenced buffer pool size was zero, which indicates to DB2 that this buffer pool should not be activated. DB2 message DSNB602I was issued to inform the operator of the error. This reason code and the table space or index space name are recorded in the cursor table (CT) and made available to the user in the SQLCA.

This abend reason code is issued by the following CSECTs: DSNB1OPP DSNB1OPS

System Action: An SQLCODE -904 (resource not available) is returned to the user. The SVC dump and the SYS1.LOGREC recording are not requested.

System Programmer Response: Analyze the virtual storage content of the *ssnmDBM1* address space to determine further action. If appropriate, use the ALTER TABLESPACE or ALTER INDEX statement to modify the affected table space or index to indicate a usable buffer pool. To determine a usable buffer pool, use the DISPLAY BUFFERPOOL command. If necessary, use the ALTER BUFFERPOOL command to activate the failing buffer pool by setting its VPSIZE to a nonzero value.

00C200E1

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to open a data set that is required to be accessed by the requesting function. An error was returned by the media manager CONNECT function, which was invoked to open a VSAM data set. DB2 message DSNB204I was issued to inform the operator of the error condition. This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1OST

System Action: A 'resource not available' code is returned to the user. Abend status is recorded in SYS1.LOGREC.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to system message IEC161I and DB2 message DSNB204I for assistance in determining the cause of the error. Correct the situation, and notify the user to invoke the application again.

Problem Determination: The unexpected media manager return code is saved in register 8. It may help determine the cause of the failure.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 10, 12.

00C200E2

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to open a data set that is required by the requesting function. An error was returned by the dynamic allocation function that was invoked to allocate a VSAM data set. DB2 message DSNB207I was issued to inform the operator of the error condition. This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1OST

System Action: A 'resource not available' code is returned to the user. Abend status is recorded in SYS1.LOGREC.

User Response: Notify the system programmer. Invoke the application again after the system programmer has corrected the error.

System Programmer Response: The error code returned from the dynamic allocation function was externalized in the DSNB207I message. Refer to the appropriate MVS publication for an explanation of this error code. Correct the situation, and notify the user to invoke the application again.

Problem Determination: The unexpected dynamic allocation return code is saved in register 8. It may help determine the cause of the failure.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 10, 12.

00C200E5

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to perform the I/O operation on a data set that is required by the requesting function. A logical I/O error was detected by the buffer manager I/O functions. The logical I/O error indicates that a requested page (read operation) resides within the error page range of the data set. This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1GET

System Action: A 'resource not available' code is returned to the user.

User Response: Notify the system programmer. Invoke the application after the system programmer has corrected the error.

Operator Response: Use the -DISPLAY DB command to obtain the error page range. Notify the system programmer.

System Programmer Response: The error page range can be located from the console sheet or through the -DISPLAY DB command. Correct the error pages with the recovery utility, and notify the user to invoke the application again. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 10, 12.

00C200E6

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to perform the I/O operation on a data set that is required by the requesting function. A permanent I/O error was detected by the media manager during preformat processing. This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB5FOR

System Action: A 'resource not available' code is returned to the user.

User Response: Notify the system programmer. Invoke the application after the system programmer has corrected the error.

System Programmer Response: Recover the entire data set with the recovery utility, and notify the user to invoke the application again. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

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Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 10, 12.

Check the MVS console log for an IOS error message indicating the type of I/O error that occurred. If an IOS message was issued, follow the problem determination directions for that message.

00C200E8

Explanation: The buffer pool (indicated in the SQLCA) cannot be created because of insufficient virtual storage. Message DSNB603I or DSNB605I was issued to inform the operator of the error. This reason code and the buffer pool ID are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

System Action: An SQLCODE -904 (resource not available) is returned to the user. The SVC dump and the SYS1.LOGREC recording are not requested.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the virtual storage content of the *ssnm*DBM1 address space to determine further action. If appropriate, use the ALTER TABLESPACE or ALTER INDEX statement to indicate use of a different buffer pool. Otherwise, use ALTER BUFFERPOOL commands to balance virtual storage usage for all buffer pools.

00C200E9

Explanation: A buffer could not be assigned in the buffer pool (indicated in the SQLCA) because all buffers in the buffer pool are in a nondisplaceable state. (Buffers are in a nondisplaceable state when they contain actively referenced pages or updated pages for which writes are pending.)

Message DSNB601I was issued to inform the operator of the error. This reason code and the buffer pool ID are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECTs: DSNB1GWB DSNIBMOC DSNIWKFD

System Action: An SQLCODE -904 (resource not available) is returned to the user. The SVC dump and the SYS1.LOGREC recording are not requested.

Operator Response: Notify the system programmer.

System Programmer Response: Reduce concurrent activity by reducing the number of DB2 threads, or, if necessary, increase the size of the failing buffer pool by using the ALTER BUFFERPOOL command.

00C200EA

Explanation: DB2 is unable to perform the drain function on an object (a table space, an index space, or a partition) because the object was held by other claimers and the drain request timed out waiting for the claim count to reach zero.

System Action: If the problem was encountered by DB2 when trying to automatically recover a group buffer pool recovery pending (GRECP) object following the failure of a group buffer pool (GBP), then DB2 issues message DSNB350I or DSNB351I to the console with this reason code indicating that the object cannot be automatically recovered.

Otherwise, a 'resource not available' return and reason code are sent back to the requesting function. DB2 message DSNT500I may be sent to the console. The reason code and the object name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in the message.

System Programmer Response: Take one of these actions:

- Reevaluate the utility timeout factor on installation panel DSNTIPI and increase it, if necessary.
- Find the threads holding the object through the -DISPLAY DB CLAIMERS command on the object. Either terminate those threads or wait until no one holds the object. Then invoke the application again.

If DSNB350I or DSNB351I messages were issued, then after you take one of the actions above, recover the GRECP objects as indicated in the "System Programmer Response" for DSNB350I or DSNB351I.

00C200EB

Explanation: A data sharing group member is not able to perform a global drain request on an object (a table space, an index space, or a partition). One or more peer members in the group hold retained locks on the object. Message DSNT501I is sent to the console to report the condition.

System Action: A 'resource not available' return code, reason code, and object name are sent back to the requesting function.

System Programmer Response: Use the DISPLAY DATABASE command with the LOCKS option to display the member names owning the retained locks. You must restart those subsystems to remove the 'resource unavailable' condition.

Problem Determination: This reason code is issued by the following CSECT: DSNB1DRA

00C200EC

Explanation: A member of a DB2 data sharing group was unable to perform a global drain request on an object (a table space, an index space, or a partition). One or more peer DB2s in the group failed to drain the object because some error occurred. Both the DB2 running the request and the peer DB2 send DB2 message DSNT500I to the console to report the problem.

System Action: A 'resource not available' return code, reason code and object name are sent back to the requesting function.

Operator Response: Notify the system programmer.

System Programmer Response: Retrieve the DSNT501I messages from the console and analyze the corresponding reason and error codes.

Problem Determination: This reason code is issued by the following CSECT: DSNB1DRA

00C200ED

Explanation: DB2, in a data sharing environment, detected that the requested use of a type 1 index with a SUBPAGES value greater than 1 would have caused the index to become group buffer pool dependent. DB2 does not allow type 1 indexes with a SUBPAGES value greater than 1 to become group buffer pool dependent.

System Action: The use of the index is not allowed.

User Response: If the index is to be used in group buffer pool dependent mode, then either the index should be converted to a type 2 index or it should be converted to a type 1 index with SUBPAGES 1.

00C200EF

Explanation: DB2 is unable to open a necessary data set. The data set attributes stored in the DB2 catalog are not supported by the version of DFSMS that is currently running.

This reason code and the data set name are recorded in the SQLCA or in messages.

System Action: A 'resource not available' code is returned to the user.

System Programmer Response: This data set cannot be opened unless this DB2 is running with DFSMS Version 1 Release 5 or a subsequent release. The data set must also be associated with an extended addressability data class.

00C200F0

Explanation: DB2 encountered an error on an IXLCACHE request while trying to write a page to the group buffer pool during physical lock (P-lock) negotiation.

System Action: The requesting execution unit abends. The error is recorded to SYS1.LOGREC, but the dump is suppressed and the abend is retried in the functional recovery. Another group member, requesting the P-lock that caused the negotiation on this member, receives a resource not available code of 00C20252, and its P-lock request is denied.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB5SCM

00C200F1

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to unallocate a DB2 data set. An error was returned by the dynamic unallocation function that was invoked to unallocate a data set. This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1CST

System Action: A 'resource not available' code is returned to the user. The SVC dump and the SYS1.LOGREC recording are requested.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The unexpected dynamic unallocation reason code is saved in register 8. It may help determine the cause of the failure. Refer to the appropriate MVS publication for an explanation of the error code.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 10, 12.

00C200F2

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to close a DB2 data set. An error was returned by the media manager DISCONNECT function that was invoked to close a data set. This reason code and the data set name are recorded in the cursor table (CT) and in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1CST

System Action: A 'resource not available' code is returned to the user. The SVC dump and the SYS1.LOGREC recording are requested.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The unexpected media manager disconnect reason code is saved in register 8 and may help determine the cause of the failure. Locate the corresponding IEC1611 message in the operator console sheet, and refer to the appropriate MVS publication for assistance in determining the cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 10, 12.

00C200F3

Explanation: DB2 is unable to obtain one of the following locks:

- SYSLGRNG or SYSLGRNX recording lock on a table space
- Group buffer pool dependent conversion lock on a page set or partition
- Group buffer pool start or stop lock
- ALTER BUFFERPOOL lock

The IRLM LOCK request detected a timeout error.

System Action: A 'resource not available' code is returned to the user. This reason code and the data set name are recorded in the cursor table (CT) and are available to the user in the SQLCA or in messages.

User Response: Resubmit the failing application.

Problem Determination: This abend reason code is issued by the following CSECTs: DSNB1SCR, DSNB1DLK.

00C200F4

Explanation: DB2 is unable to obtain one of the following locks:

- SYSLGRNG or SYSLGRNX recording lock on a table space
- Group buffer pool dependent conversion lock on a page set or partition
- Group buffer pool start or stop lock
- ALTER BUFFERPOOL lock

The IRLM LOCK request detected an out-of-storage condition.

System Action: A 'resource not available' code is returned to the user. This reason code is recorded in the cursor table (CT) and is available to the user in the SQLCA or in messages.

User Response: Resubmit the failing application.

Problem Determination: This abend reason code is issued by the following CSECTs: DSNB1SCR, DSNB1DLK

00C200F6

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to open a data set that is required to be accessed by the requesting function. The data set has been migrated by DFHSM and the data set must be recalled before being accessed. Since the RECALL(yes) option was selected by the installation, a recall for the migrated data set has been initiated. A recall was not complete after the amount of time specified in the RECALL option had elapsed.

This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages. The data set name and the reason code indicated are the last migrated data set requested. Other migrated data sets within the table space may exist. For each one that exists, a DSNT500I message containing the data set name and reason code has been sent to the console.

This abend reason code is issued by the following CSECT: DSNB1RST

System Action: A 'resource not available' code is returned to the user. A DSNT500I message is sent to the console.

User Response: After the data set has been restored, rerun the application program, transaction, or query. If necessary, contact the operator to find out the status of the migrated data set.

00C200F7

Explanation: The page found in the buffer is not the page requested by the buffer manager. The buffer manager detected the error by comparing the page number of the page returned with the requested page number. This error may be caused by one of the following:

- Either the VTOC or VVDS is damaged, causing multiple data sets to occupy the same extents on DASD.
- The page was altered incorrectly by a non-DB2 facility or a DB2 service aid.
- An internal DB2 error damaged the page. The recovery log will be required for problem determination.

This abend reason code is issued by the following CSECT: DSNB1GET

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: If you suspect an

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
7	Address of the page buffer
8	Address of the page set block (PB)

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 10, 12, 28, 29, 30.

00C200F8

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to perform the I/O operation on a data set. A physical I/O error was detected by the buffer manager I/O functions.

This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECTs: DSNB1GET DSNB5COM

System Action: A 'resource not available' code is returned to the user. A DSNB224I message is issued, unless it has already been issued 10 times for the data set.

If the I/O is a write operation, or if the I/O is a read operation performed during restart or rollback, then the error page range of the data set is updated. A DSNU086E message is issued indicating the data set name and its corresponding I/O error page range, unless it has already been issued 10 times for the data set.

User Response: Notify the system programmer. Invoke the application after the system programmer has corrected the error.

Operator Response: Use the -DISPLAY DB command to obtain the error page range. Notify the system programmer.

System Programmer Response: The error page range can be located from the console sheet or with the -DISPLAY DB command. Correct the error pages with the recovery utility, and notify the user to invoke the application again. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 10, 12.

Check the MVS console log for an IOS error message indicating the type of I/O error that occurred. If an IOS

message was issued, follow the problem determination directions for that message.

00C200F9

Explanation: DB2 is unable to open a data set that the requesting function must access. The data set was migrated by HSM and must be recalled before being accessed. DB2's attempt to initiate a recall of the migrated data set was unsuccessful.

This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages. The data set name and the reason code indicated are the last requested migrated data set. Other migrated data sets might exist. For each existing data set, message DSNT500I containing the data set name and reason code was sent to the console.

System Action: A 'resource not available' code is returned to the user. A DSNT500I message is sent to the console.

User Response: Issue the HSM command (HRECALL) to restore the migrated data set. Rerun your application program, transaction, or query after the data set is restored.

Problem Determination: This abend reason code is issued by the following CSECT: DSNB1OST

00C200FA

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to obtain an open lock to perform a physical open or close of a page set. A timeout error was detected by the IRLM LOCK request. The reason code and the database and page set names are recorded in the cursor table (CT). They are made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1LCK

System Action: A 'resource not available' code is returned to the user.

User Response: Resubmit the failing application.

00C200FB

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to obtain an open lock to perform a physical open or close of a page set. An out-of-storage condition was detected by the IRLM LOCK request. The reason code and the database and page set names are recorded in the cursor table (CT). They are available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1LCK

System Action: A 'resource not available' code is returned to the user.

User Response: Resubmit the failing application.

00C200FC

Explanation: The buffer manager (BM) subcomponent of DB2 is unable to obtain an open lock to perform a physical open or close of a page set. A system error was detected by the IRLM LOCK request. The reason code and the database and page set names are recorded in the cursor table (CT). They are made available to the user in the SQLCA or in messages.

This abend reason code is issued by the following CSECT: DSNB1LCK

System Action: A 'resource not available' code is returned to the user.

User Response: Resubmit the failing application.

00C200FD

Explanation: The buffer manager is unable to perform the I/O operation on a data set due to an error on page's parity flag detected by the buffer manager's I/O function.

This abend reason code is issued by the following CSECT: DSNB1GET

System Action: A 'resource not available' return code is returned to the user. The related reason code 00C200FD, the page number, the page set name, and the data base name in question are recorded in the cursor table (CT) and made available to the user in the SQLCA.

Operator Response: Notify the system programmer.

System Programmer Response: The error page can be found via SQLCA. Correct the error pages with the recovery utility, and notify the user to invoke the application again.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for failure for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 10, 12.

00C200FE

Explanation: DB2 is unable to open a data set that the requesting function must access. The data set was migrated by DFHSM and must be recalled before being accessed. Since the RECALL(no) option was selected by the installation, recall for the migrated data set was not initiated.

This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages. The data set name and the reason code indicated are the last migrated data set

requested. Other migrated data sets within the table space might exist. For each existing data set, message DSNT500I containing the data set name and reason code has been sent to the console.

System Action: A 'resource not available' code is returned to the user. A DSNT500I message is sent to the console.

User Response: Notify the system programmer. After the data set is restored, rerun the application program, transaction, or query.

System Programmer Response: Issue the DFHSM command (HRECALL) to restore the migrated data set.

Problem Determination: This abend reason code is issued by the following CSECT: DSNB1OST

00C200FF

Explanation: An attempted open of a page set failed because DB2 has reached the MVS limit on concurrent open data sets.

This reason code is issued by the following CSECT: DSNB1OST

System Action: A 'resource not available' (SQLCODE -904) is returned to the user and the requested open is not performed. This reason code and the data set name are recorded in the cursor table (CT) and made available to the user in the SQLCA. A DSNB207I message is displayed on the operator console. The SVC dump and the SYS1.LOGREC recording are not requested.

Operator Response: Notify the system programmer.

System Programmer Response: Reduce the number of page sets that must be kept open by DB2 by limiting the amount of concurrent activity.

Problem Determination: Collect the following diagnostic item from Appendix B, "Problem determination," on page 1353: 1.

00C20101

Explanation: The sharing attribute is inconsistent between the header page of a data set and the DBD. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OPP

System Action: A "resource not available" code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: First determine whether the database is shared, and whether it is owned by this system. This can be achieved by issuing a SELECT on the SYSIBM.SYSDATABASE catalog table, where the database name is the database you

are checking, and by examining the ROSHARE column.

If the DB2 catalog indicates that it is a ROSHARE OWNER database, the problem can be corrected by the REPAIR utility or the -STOP DATABASE command. The -STOP DATABASE command will reformat the header page and make it consistent with the DBD.

If the database is ROSHARE READ on this system, then check the definition of the database on the owning system. If, on the owning system, the database is no longer defined as ROSHARE OWNER, then the table space or index should be dropped on the system on which the error was detected, since the database has been altered to nonshared by the owning system. However, if the database is defined as ROSHARE OWNER on the owning system, then issue a -STOP DATABASE with the SPACENAM parameter from the owning system, which will make the header page consistent with the owner's DBD, and force this change to DASD, making it available to other systems.

If it is a nonshared database, then the sharing attribute can only be corrected via the REPAIR utility.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00C20102

Explanation: A read-only system attempted to access an inconsistent data set. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OPP

System Action: A "resource not available" code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: On the system in which the database is defined as ROSHARE OWNER, perform the following tasks:

- Use the -DISPLAY DATABASE command to insure there is no exceptional state for this table space or index.
- Issue the -STOP DATABASE command with the SPACENAM parameter to stop this table space or index.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00C20103

Explanation: DB2 is unable to access a data set because its system page is inaccessible. This reason code and the data set name are available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OPP

System Action: A "resource not available" code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: Determine why the system page is inaccessible by examining any error messages that appeared on the console at the time of the error, or by issuing a -DISPLAY DATABASE command. Take the appropriate action to correct the situation.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00C20104

Explanation: DB2 is unable to access a shared data set because it was down leveled by a DSN1COPY job, or a REPAIR utility with REPLACE RESET specified. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OPP

System Action: A "resource not available" code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: On the system in which the database is defined as ROSHARE OWNER, perform the following tasks:

- Use the -DISPLAY DATABASE command to insure there is no exceptional state for this table space or index.
- Issue the -STOP DATABASE command with the SPACENAM parameter to stop this table space or index.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00C20105

Explanation: The page set creation timestamp is inconsistent between the header page and the DBD. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OPP

System Action: A "resource not available" is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: First determine whether the database is shared, and whether it is

owned by this system. This can be achieved by issuing a SELECT on the SYSIBM.SYSDATABASE catalog table, where the database name is the database you are checking, and examining the ROSHARE column.

For a data set in a ROSHARE OWNER database, if the failure occurs on a CREATE TABLESPACE or CREATE INDEX, the timestamp mismatch indicates that the table space or index was previously dropped, but DB2 was unable to delete the data set. In this case, the data set must be deleted using AMS DELETE CLUSTER before the CREATE can take place.

For a data set in a ROSHARE OWNER database at any time other than CREATE TABLESPACE or CREATE INDEX, the inconsistent timestamp can be corrected by first stopping the table space or index via the -STOP DATABASE command with the SPACENAM parameter, and then issuing the -START DATABASE command to start it. The -STOP DATABASE command will reformat the header page using the information retrieved from the DBD.

For a data set in a ROSHARE READ database, a timestamp mismatch indicates that the table space or index has been dropped and re-created on the owning system, and must also be dropped and re-created on this system.

For a data set in a nonshared database, the timestamp value in the header page can only be corrected via the REPAIR utility.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00C20106

Explanation: An update was attempted on a database defined as ROSHARE READ. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECTs: DSNB1SWS DSNB5FOR.

System Action: A "resource not available" code is returned to the user.

User Response: An update operation is not allowed in this database. Check to insure that the target of the update was correct, and also that the database is defined as ROSHARE READ. If the update should occur, then it should be issued on the system in which the database was defined as ROSHARE OWNER.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1,

00C20107

Explanation: An update was attempted in a ROSHARE OWNER database, but the data set was opened in RO mode. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECTs: DSNB1SWS DSNB5FOR.

System Action: A "resource not available" code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: Issue the -STOP DATABASE command with the SPACENAM parameter to explicitly stop this table space/index space and then issue the -START DATABASE ACCESS(RW) command.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00C20108

Explanation: An object in a ROSHARE OWNER database cannot be accessed. At least one system with the database defined as ROSHARE READ is still accessing it. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OST

System Action: A "resource not available" code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: Insure that there are no systems on which the database is defined as ROSHARE READ that are still accessing the database. Issue the -STOP DATABASE command with the SPACENAM parameter on the ROSHARE READ systems that are accessing the database.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00C20109

Explanation: An object in a ROSHARE READ database cannot be accessed. The system with the database defined as ROSHARE OWNER still has RW access. This reason code and the data set name are made available to the user in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1OST

System Action: A “resource not available” code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: On the system in which the database is defined as ROSHARE OWNER, perform the following tasks:

- Use the -DISPLAY DATABASE command to insure there are no exceptional states for this table space or index.
- Issue the -STOP DATABASE command with the SPACENAM parameter to stop this table space or index.

Problem Determination: Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1.

00C2010A

Explanation: DB2 is attempting to open a shared data set in a ROSHARE READ database, but the system cannot locate the data set. The table space or index might already be dropped from the owning system.

System Action: A 'resource not available' code is returned to the user. This reason code and the data set name are made available to the user in the SQLCA or in messages.

User Response: Notify the system programmer.

System Programmer Response: Run IDCAMS LISTCAT to verify the existence of this data set. Verify whether the associated table space or index exists in the database defined as ROSHARE OWNER. If not, issue DROP TABLESPACE or INDEX on all systems in which the database is defined as ROSHARE READ.

Problem Determination: Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1.

This reason code is issued by the following CSECT: DSNB1OST

00C2010B

Explanation: DB2 is attempting to open a shared data set in a database defined for ROSHARE, but the data set cannot be accessed because it is not defined with SHAREOPTIONS(1,3).

System Action: A 'resource not available' code is returned to the user. This reason code and the data set name are made available to the user in the SQLCA or in messages.

User Response: Notify the system programmer.

System Programmer Response: Ensure that this data set belongs to a shared database, and check the SHAREOPTIONS using IDCAMS LISTCAT. If so, use AMS ALTER SHAREOPTIONS to alter the data set to

SHAREOPTIONS(1,3), and resubmit the failing application.

Problem Determination: Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1.

This reason code is issued by the following CSECT: DSNB1OST

00C2010C

Explanation: DB2 was unable to update the high-used RBA in the VSAM volume data set (VVDS) when it was ready to close a data set. VVDS must be updated to reflect data loaded by a RECOVER, LOAD, or REORG utility job. Message DSNB200I is issued to the console with the VSAM media manager return codes.

This reason code and the data set name are recorded in the cursor table (CT) and made available in the SQLCA or in messages.

This reason code is issued by the following CSECT: DSNB1CST

System Action: A 'resource not available' code is returned to the user. A DSNB200I message is issued to the console. DB2 continues to close the data set.

User Response: Contact the system programmer. Restart or rerun the RECOVER, LOAD, or REORG job after the system programmer corrects the error.

System Programmer Response: Refer to system messages IEC161I and DB2 message DSNB200A for assistance in determining the cause of the error. Correct the condition, and notify the user to reinvoke the application.

Problem Determination: Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 10, 11.

00C2010D

Explanation: DB2 was unable to open a required data set because an unexpected level ID was encountered.

The reason code and the data set name are made available in the SQLCA or in messages.

System Action: A 'resource unavailable' code is returned to the user. Message DSNB232I is issued to the console if it was not already issued for the data set. DB2 failed to open the data set.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to message DSNB232I for help in determining the cause of the error. Run the utility REPAIR LEVELID or recover the table space or index, and then tell the user to rerun the application.

Problem Determination: This reason code is issued by the following CSECT: DSNB1OPD

00C2010E

Explanation: This is a DB2 internal error. DB2 encountered a problem while trying to add a page to the logical page list (LPL).

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print SYS1.LOGREC, and request an SVC dump.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB1LPL

00C2010F

Explanation: This dump provides assistance for diagnosing the page latch time-out problem after 00C20031 is returned as the reason code for 'resource not available'.

System Action: The requesting execution unit is abended to take a diagnostic dump then recovered to return an SQLCODE -904 (resource not available) to the user with the 00C20031 reason code. The resource name is also provided.

User Response: Contact the system programmer to determine why the resource is unavailable. Print the SYS1.LOGREC and the SVC dump.

This reason code is issued by the following CSECTs: DSNB1LTX, DSNB1LTS.

00C20110

Explanation: DB2 cannot access a table space, index, or partition because the highest formatted page (as recorded by DB2 in the header page) is higher than that derived from the VSAM high-used RBA.

The reason code and the data set name for this error are available in the SQLCA or in messages.

System Action: DB2 returns a 'resource unavailable' code to the user.

System Programmer Response: To enable access to the object, take one of the following actions:

- Restore the object to a consistent state with the RECOVER or REBUILD utility, DSN1COPY, or some other means.
- Replace the data using the LOAD REPLACE utility.
- Allow access to the data in its current state. Use the REPAIR LEVELID utility to reset the high-used page number in the header page to be consistent with the VSAM high-used RBA. This may result in inconsistent data.

Problem Determination: Determine the

high-formatted page number in the header page by running DSN1PRNT with the FORMAT option, and checking the value of HPGHPREF.

You can also determine the VSAM high-used RBA by running an IDCAMS LISTCAT on the dataset.

00C20111

Explanation: An attempt was made to access a DB2 striped data set with a page size of 8K, 16K or 32K that is defined with the 4K Control Interval (CI) size. DB2 does not allow this because partial writes cannot always be detected.

System Action: A 'resource not available' code is returned to the user. This reason code and the data set name are made available to the user in the SQLCA.

User Response: Convert the data set attribute 'control interval size' of the associated tablespace from 4K CI into the one matching the page size. DB2 Utilities REORG tablespace, LOAD with REPLACE, and RECOVER can be used to convert the table space.

System Programmer Response: Ensure that the data set is defined with the CI size that matches its page size.

Problem Determination: Obtain an access method services LISTCAT for the named data set's attributes.

00C20200

Explanation: DB2 was unable to open a required index data set because the index was formatted incorrectly. For example, it may have been formatted as a Type 1 index when the DB2 catalog indicates that it should be Type 2.

The reason code and index data set name are made available in the SQL communication area or in related messages.

System Action: A 'resource unavailable' code is returned to the user.

Operator Response: Notify the system programmer.

System Programmer Response: Use the RECOVER utility to restore the index to a consistent state.

Problem Determination: This reason code is issued by the following CSECT: DSNB1OPP.

00C20203

Explanation: DB2 cannot connect to a group buffer pool. The group buffer pool is not usable by this release of DB2. This DB2 subsystem is a member of a data sharing group containing DB2 members of different release levels. A later release level of DB2 specified an option for this group buffer pool that is not supported by the previous DB2 releases. The presence of this option

makes the group buffer pool inaccessible to the previous DB2 releases.

System Action: DB2 takes the following actions:

- Unless already issued, message DSNB301E is sent to the console with this reason code to indicate that a connect failure occurred.
- SQLCODE -904 (resource not available) is returned to the user with this reason code. The resource type and resource name are also returned.

User Response: Contact the system programmer.

System Programmer Response: Do one of the following:

- Issue the -ALTER GROUPBUFFERPOOL command from a DB2 that is at the later release level to remove the new option so that previous release levels of DB2 can access the group buffer pool.
- Migrate the previous release levels to the current release.

Problem Determination: This reason code is issued by the following CSECT: DSNB1GC0

00C20204

Explanation: DB2 is unable to connect to a group buffer pool because MVS detected a problem on the IXLCONN request.

System Action: SQLCODE -904 (resource not available) and the group buffer pool name are returned to the user. Unless already issued for the IXLCONN code, message DSNB301E, which contains this reason code and the IXLCONN code, is issued to the console.

User Response: Contact the system programmer.

Problem Determination: The reason code returned by the IXLCONN request is given in message DSNB301E.

If the connection problem was caused by insufficient storage in a coupling facility, tell the MVS system administrator to alleviate the storage constraint problem by making additional storage available to the involved coupling facility, or by changing the active MVS CFRM administrative policy to redefine the coupling facility structure to a different coupling facility. Another alternative is to have the database administrator reassign those inter-DB2 sharing page sets to a different DB2 buffer pool.

Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLCONN reason code.

This abend reason code is issued by the following CSECT: DSNB1GC1

00C20205

Explanation: DB2 is unable to access a group buffer pool because of a damage assessment pending (DAP) status against the group buffer pool.

System Action: The action DB2 takes depends on the situation, as follows:

- If DB2 tries to read a page from the group buffer pool and finds that the group buffer pool is in DAP status, the following actions are taken:
 - SQLCODE -904 (resource not available) is returned to the user with this reason code. The name of the group buffer pool is also returned.
- If DB2 tries to read a page from the group buffer pool for rollback, backout, or restart and finds that the group buffer pool is in DAP status, the following actions are taken:
 - The page is added to the logical page list (LPL) for the page set.
 - Message DSNB250E is issued to the console with this reason code.
- If DB2 tries to write a page to the group buffer pool and finds that the group buffer pool is in DAP status, the following actions are taken:
 - The page is added to the logical page list (LPL) for the page set.
 - Message DSNB250E is issued to the console with this reason code.
- If DB2 detects DAP status when it tries to connect the group buffer pool, or if DB2 detects a group buffer pool version ID mismatch after a successful connection, the following actions are taken:
 - The damage assessment process is triggered for this group buffer pool.
 - SQLCODE -904 (resource not available) is returned to the user with this reason code. The name of the group buffer pool is also returned.
 - Unless already issued, message DSNB301E, which contains this reason code, is issued to the console.

User Response: Contact the system programmer.

System Programmer Response: Message DSNB304I is issued when the group buffer pool is entered into DAP state and message DSNB305I is issued when the DAP status is cleared. During the damage assessment process, DB2 must determine which page sets or partitions might have had changed pages in the failed coupling facility structure and thus need to be recovered. Each page set/partition fitting this criteria is entered into 'group buffer pool REBUILD pending (GRECP)' status. A page set/partition in GRECP status remains unavailable for read or update until it is recovered.

Problem Determination: This reason code is issued by the following CSECT: DSNB1GC0

00C20206

Explanation: An attempt was made to access a page which is currently in the logical page list (LPL). LPL pages are unavailable until recovery on the affected page set completes.

System Action: SQLCODE -904 (resource not available) is returned to the user with this reason code. The resource name is also given.

User Response: Contact the system programmer.

System Programmer Response: For those page sets in the LPL, use the RECOVER utility or the -START DATABASE command.

Problem Determination: This reason code is issued by the following CSECTs: DSNB1LPL DSNB1GET DSNB1SWS

00C20207

Explanation: DB2 is unable to connect to a group buffer pool because of a DB2 system error during connect processing. This is an internal DB2 problem.

System Action: A SYS1.LOGREC entry is produced and an SVC dump is requested for the original abend which caused this condition. After doing resource and latch recovery, DB2 retries the abend if retry is allowed. SQLCODE -904 (resource not available) is returned to the user with this reason code and the group buffer pool name. Unless already issued, message DSNB301E, which contains this reason code, is issued to the console.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB1GC1

00C20208

Explanation: The user attempted to access a group-buffer-pool-dependent page set or partition. However, the DB2 member was unable to connect to the group buffer pool because there was not enough hardware system area (HSA) storage in which to allocate the local cache vector (LCV).

System Action: DB2 disconnects from the group buffer pool and issues message DSNB301E with this reason code, if it has not yet been issued. DSNB301E is usually preceded by a DSNB306I message.

SQLCODE -904 is returned to the user with this reason code.

User Response: Contact the system programmer.

System Programmer Response: Refer to message DSNB306I.

Problem Determination:

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1,

This reason code is issued by the following CSECT: DSNB1GC1

00C20210

Explanation: An attempt was made to access a page set or partition which is currently in group buffer pool recovery pending (GRECP) status.

System Action: SQLCODE -904 (resource not available) is returned with this reason code. The resource name is also given. GRECP page sets or partitions remain unavailable until recovery against the affected page set or partition is complete.

User Response: Contact the system programmer to determine when the resource will be available for use.

System Programmer Response: Use the START DATABASE command with the ACCESS RW option to recover the page set or partition and remove the GRECP status. In extreme or unusual circumstances, you can also remove GRECP status as follows:

- RECOVER, either to currency, or to a prior point in time
- REPAIR SET with NORCVRPEND
- LOAD REPLACE
- START DATABASE with ACCESS FORCE (Not recommended. Specifying this option can result in inconsistent data.)

Problem Determination: This reason code is issued by the following CSECT: DSNB1OPP

00C20211

Explanation: DB2 is unable to access a group buffer pool because the group buffer pool is rebuilding, and the attempt to access the group buffer pool timed out waiting for the rebuild to complete.

System Action: 'Resource not available' return and reason codes are sent back to the requesting function.

User Response: Resubmit the request.

System Programmer Response: Use the DB2 DISPLAY GROUPBUFFERPOOL command or the MVS D XCF,STR command to monitor the status of the rebuild. Also, monitor the status messages that the DB2 members issue as the rebuild progresses (refer to messages DSNB331I, DSNB332I, and DSNB338I). If the rebuild is not progressing satisfactorily, you can use the MVS command SETXCF,STOP,REBUILD to stop the rebuild.

00C20220

Explanation: While DB2 was accessing a group buffer pool, MVS detected an environmental error during an IXLCACHE request from DB2.

System Action: The requesting execution unit abends.

Problem Determination: The IXLCACHE reason code saved in register 8 can help determine the cause of the error. Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLCACHE reason code.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs:

DSNB5BPL DSNB5GGP DSNB5PCO DSNB5SCM
DSNB5SCO

00C20221

Explanation: While accessing a group buffer pool, DB2 received an unexpected error from MVS, which detected an invalid parameter on an IXLCACHE request from DB2. This code usually indicates a DB2 internal problem. However, the problem can result from errors in other products.

System Action: The requesting execution unit abends.

Problem Determination: The IXLCACHE reason code saved in register 8 can help determine the cause of the error. Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLCACHE reason code.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs:

DSNB5BPL DSNB5GGP DSNB5PCO DSNB5SCM
DSNB5SCO

00C20222

Explanation: While accessing a page in a buffer pool, DB2 received an unexpected error from MVS, which detected an invalid parameter on an IXLVECTR request from DB2. This code usually indicates a DB2 internal problem. However, the problem can result from errors in other products.

System Action: The requesting execution unit abends.

Problem Determination: See the IXLVECTR return code in register 8 to help determine the cause of the error. Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLVECTR reason code.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs:

DSNB1LTS DSNB1LTX DSNB1RSS

00C20223

Explanation: DB2 encountered an error while invoking the IXLCACHE macro.

System Action: The requesting execution unit abends. DB2 terminates abnormally causing MVS to reset the castout locks.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB5PCO

00C20224

Explanation: DB2 received an unexpected return and reason code from the MVS IXLFCOMP macro for a group buffer pool.

System Action: DB2 abends the agent and requests a dump. If the group buffer pool is in duplex mode, then DB2 may stop duplexing for the group buffer pool in response to this error.

System Programmer Response: If the group buffer pool was duplexed and is entered back into simplex mode as a result of this error, and duplexing is not automatically reestablished, then use the MVS SETXCF command to enter the group buffer pool back into duplex mode if duplexing is desired. If DUPLEX(ENABLED) is specified in the active CFRM policy for the group buffer pool, then the system attempts to automatically reestablish duplexing for the structure.

Problem Determination: See *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the MVS IXLREBLD reason code.

Refer to Section 3 of *Diagnosis Guide and Reference* for more information on identifying and reporting the problem.

00C20230

Explanation: DB2 could not establish duplexing for a group buffer pool because a coupling facility with CFLEVEL = 5 functionality was not available in which to allocate the secondary group buffer pool.

System Action: The group buffer pool is entered back into simplex mode. Message DSNB7411 is issued indicating the reason code as the reason why the process to establish duplexing failed.

System Programmer Response: Upgrade the coupling facilities to CFLEVER = 5 or above. Or change the PREFLIST for the group buffer pool to name only coupling facilities that have CFLEVER = 5 functionality.

00C20231

Explanation: DB2 could not establish duplexing for a group buffer pool because the primary structure instance of that group buffer pool is allocated in a coupling facility that does not have CFLEVEL = 5 functionality.

System Action: The group buffer pool is entered back into simplex mode. Message DSNB7411 is issued indicating the reason code as the reason why the process to establish duplexing failed.

System Programmer Response: Upgrade the coupling facilities to CFLEVER = 5 or above. Or change the PREFLIST for the group buffer pool to name only coupling facilities that have CFLEVER = 5 functionality.

00C20232

Explanation: DB2 could not establish duplexing for a group buffer pool because the group buffer pool is defined with GBPCACHE(NO). DB2 does not allow GBPCACHE(NO) group buffer pools to be duplexed.

System Action: The group buffer pool is entered back into simplex mode. Message DSNB7411 is issued indicating the reason code as the reason why the process to establish duplexing failed.

System Programmer Response: If duplexing is desired for the group buffer pool, issue the DB2 ALTER GROUPBUFFERPOOL command to specify GBPCACHE(YES) before trying to initiate duplexing.

00C20233

Explanation: DB2 detected a version id mismatch for the secondary group buffer pool when connecting to a duplexing group buffer pool. The version id mismatch indicates that the process to establish duplexing completed prematurely (for example due to a system failure), and thus the secondary group buffer pool is not in synch with the primary.

System Action: DB2 stops duplexing for the group buffer pool. The group buffer pool is entered back into

simplex mode. Message DSNB743I is issued indicating the reason code as the reason why the process to establish duplexing was stopped. If DUPLEX(AUTO) is specified for the group buffer pool in the active CFRM policy, then duplexing is automatically reinitiated.

System Programmer Response: If duplexing is desired for the group buffer pool and duplexing is not automatically reinitiated, then use the MVS SETXCF command to initiate duplexing for the group buffer pool.

00C20251

Explanation: DB2 is unable to obtain a physical lock (P-lock) because of an out-of-storage condition detected by IRLM.

System Action: SQLCODE -904 is returned to the user with this reason code. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA.

Operator Response: Notify the system programmer.

System Programmer Response: IRLM exhausted the amount of virtual storage available to it to represent locks. Refer to code 00C90092 for methods to reduce the storage needed by IRLM.

Problem Determination: This reason code is issued by the following CSECT: DSNB1PER

00C20252

Explanation: DB2 is unable to obtain a physical lock (P-lock). Another DB2 holds the P-lock in an incompatible state, but is unable to downgrade because it does not have access to the corresponding group buffer pool.

System Action: SQLCODE -904 (resource not available) is returned to the user. The other DB2 produces additional diagnostic information in the form of messages, trace records, SYS1.LOGREC entries, and/or an SVC dump. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA.

Problem Determination: This reason code is issued by the following CSECT: DSNB1PER

00C20254

Explanation: DB2 is unable to acquire or upgrade a physical lock (P-lock) because of an incompatible retained lock held by one or more other DB2 subsystems in the DB2 data sharing group. Retained locks are locks that persist across DB2 abnormal terminations.

System Action: SQLCODE -904 is returned to the user. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA.

System Programmer Response: Use the -DISPLAY DATABASE command to display the DB2 member names owning the retained locks. You must restart those subsystems to remove the 'resource unavailable' condition. To show the status of the DBMS and IRLM subsystems, you can use the following command:

```
Fi rImproc,STATUS,ALLD
```

00C20255

Explanation: DB2 is unable to obtain a physical lock (P-lock). This is a DB2 internal error.

System Action: SQLCODE -904 (resource not available) is returned to the user. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA. The other DB2 produces additional diagnostic information in the form of messages, trace records, SYS1.LOGREC entries and/or an SVC dump.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB1PER

00C20256

Explanation: DB2 is unable to obtain a physical lock (P-lock). This is a DB2 internal error.

System Action: SQLCODE -904 (resource not available) is returned to the user. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA. The other DB2 produces SYS1.LOGREC entries, and, depending on the type of abend, might also produce an SVC dump.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB1PER

00C20257

Explanation: DB2 is unable to obtain a physical lock (P-lock) because of an 'out of record list storage' condition that IRLM detected. The record list is that part of the coupling facility lock structure that IRLM uses to record 'modify locks' (those locks that would be retained in case of a failure).

System Action: SQLCODE -904 is returned to the user with this reason code. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA.

System Programmer Response: Allocate a larger coupling facility lock structure by using the MVS

SETXCF,REBUILD command. Make sure that the active MVS CFRM policy specifies a larger structure size for the IRLM coupling facility lock structure before you initiate the rebuild. You can use the MVS SETXCF,STOP,POLICY and SETXCF,START,POLICY commands to change the active MVS CFRM policy. If lock size is not already at the current POLICY maximum size, you can increase lock size with the SETXCF START,ALTER,STRNAME=*lock_structure*,SIZE=*new_size* command.

Problem Determination: This reason code is issued by the following CSECT: DSNB1PER

00C20258

Explanation: DB2 is not able to obtain a physical lock (P-lock) until a peer member restarts. Another DB2 holds the P-lock in an incompatible state but cannot downgrade until it completes its restart.

System Action: SQLCODE -904 (resource not available) is returned to the user. This reason code and the resource name are made available to the user in the SQLCA.

User Response: Resubmit the failing application. The P-lock becomes available after the peer member completes its restart processing.

Problem Determination: This reason code is issued by the following CSECT: DSNB1PER

00C20259

Explanation: This is a DB2 internal error. This reason code and the group buffer pool name are recorded in the cursor table (CT) and made available to the user in the SQLCA or in messages.

System Action: A 'resource not available' code is returned to the user. Abend status is recorded in SYS1.LOGREC.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECT: DSNB1SCR

00C2025A

Explanation: DB2 encountered an unexpected error from IRLM while trying to acquire a global lock for MBA (multiple buffer pool) object.

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested. Collect messages DSNT376I, DSNT500I, and DSNT501I for further diagnosis.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs: DSNB1BSD, DSNB1GIO, DSNB1PM2, DSNB1PMT

00C2025B

Explanation: DB2 encountered an unexpected error while trying to read from the shared communications area (SCA) for MBA (multiple buffer pool) object.

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs: DSNB1BSD, DSNB1GIO, DSNB1PMT

00C2025C

Explanation: DB2 encountered an unexpected error while trying to write to the shared communications area (SCA) for MBA (multiple buffer pool) object.

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1BSD, DSNB1GIO, DSNB1PM2, DSNB1PMT

00C20260

Explanation: This is a DB2 internal error. Castout was unsuccessful because DB2 lost connectivity to the group buffer pool.

System Action: A 'resource not available' code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: Establish this DB2's connectivity to the group buffer pool before allowing operations that reference this group buffer pool.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB5PCO

00C20261

Explanation: This is a DB2 internal error. Castout was unsuccessful due to a group buffer pool structure failure.

System Action: A 'resource not available' code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: Establish this DB2's connectivity to the group buffer pool before allowing operations that reference this group buffer pool.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB5PCO

00C20262

Explanation: This is a DB2 internal error. Castout was unsuccessful due to errors in writing a page to DASD.

System Action: A 'resource not available' code is returned to the user.

User Response: Notify the system programmer.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECT: DSNB5PCO

00C20263

Explanation: This is a DB2 internal error. Castout was unsuccessful due to an unexpected error.

System Action: A 'resource not available' code is returned to the user. An SVC dump and the SYS1.LOGREC recording were requested.

User Response: Notify the system programmer.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECT: DSNB5PCO

00C20264

Explanation: DB2 is unable to acquire or upgrade a physical lock (P-lock) because at least one other DB2 subsystem in the data sharing group is holding an incompatible retained lock. The amount of time this DB2 can wait for a locked resource was exceeded. This reason code is only issued if the RETLWAIT installation parameter in DSN6SPRM is set to 'YES'. If RETLWAIT is set to 'NO' (this is the default), then any IRLM lock

that conflicts with a retained lock will not wait, but instead will be immediately rejected (see reason code 00C20254).

System Action: An SQLCODE -904, -911, -913 or -923 is issued, and message DSNT5011 is issued. Also, message DSNT378I is issued.

System Programmer Response: Refer to the 'System Programmer Response' in message DSNT378I.

Problem Determination: This reason code is issued by the following CSECT: DSNB1PER

00C20267

Explanation: DB2 is unable to recover GRECP status for a table space or index because one or more sharing group members could not perform a global drain request on the object.

System Action: A DB2 message of DSNB350 or DSNB351 is issued.

User Response: Issue a START DB command to explicitly recover the page set from GRECP/LPL status.

System Programmer Response: Refer to the 'System Programmer Response' in message DSNB350 or DSNB351.

00C20268

Explanation: DB2 is unable to recover GRECP status for a table space or index because one or more sharing group members could not perform a global drain request on the object. One or more peer DB2s in the group failed to drain the object because some error occurred.

System Action: A DB2 message of DSNB350 or DSNB351 is issued.

User Response: Issue a START DB command to explicitly recover the page set from GRECP/LPL status.

System Programmer Response: Refer to the 'System Programmer Response' in message DSNB350 or DSNB351.

00C202A1

Explanation: DB2 encountered an unexpected error while trying to read from or write to the shared communications area (SCA).

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1GBS

00C202A2

Explanation: MVS returned an unexpected error from an IXLDISC request to disconnect a group buffer pool.

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested. The IXLDISC reason code is saved in register 8 for SYS1.LOGREC recording and the SVC dump.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLDISC reason code.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1GD1

00C202A3

Explanation: MVS returned an unexpected error from an IXLFORCE request to deallocate a group buffer pool.

System Action: A SYS1.LOGREC entry is written and an SVC dump is requested. The IXLFORCE reason code is saved in register 8 for SYS1.LOGREC recording and the SVC dump.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLFORCE reason code.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1GD1

00C202A4

Explanation: MVS detected an error on an IXLCONN request from DB2.

System Action: A SYS1.LOGREC entry is written and an SVC dump is requested. Unless already issued, message DSNB301E, which contains this reason code, is issued to the console. The IXLCONN reason code is saved in register 8 for SYS1.LOGREC recording and the SVC dump. This reason code and the group buffer pool name are returned to the user in the SQLCA.

System Programmer Response: Refer to *MVS/ESA Programming: Sysplex Services Reference* for the MVS IXLCONN reason code.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C202A5 • 00C202AA

This abend reason code is issued by the following CSECT: DSNB1GC1

00C202A5

Explanation: The cache coupling facility structure attributes passed back by MVS on an IXLCONN request were incorrect.

System Action: A SYS1.LOGREC entry is written. The newly-connected group buffer pool is disconnected. If this is a non-rebuild connect then message DSNB301E, which contains this reason code, is issued to the console (unless it has already been issued). In the message this reason code and the group buffer pool name are returned to the user in the SQLCA. If this is a rebuild connect, then message DSNB330E, which contains this reason code, is issued to the console and this reason code is used to stop the rebuild.

Problem Determination: Check the SYS1.LOGREC variable recording area (VRA) for the following information:

- VRARRK30 - Error mask, set as follows:
 - If bit X'40' is set, DB2 specified a structure disposition of KEEP, but the structure was not allocated this way.
 - If bit X'20' is set, the data element size was not allocated as DB2 requested. VRARRK31 contains the requested data element size, and VRARRK32 contains the allocated data element size.
 - If bit X'10' is set, the allocated vector was not long enough to cover the corresponding buffer pool. VRARRK31 contains the requested vector length, and VRARRK32 contains the allocated vector length.

This abend reason code is issued by the following CSECT: DSNB1GC1

00C202A6

Explanation: This is a DB2 internal error. Unless already issued, message DSNB301E, which contains this reason code, is issued to the console.

System Action: A SYS1.LOGREC entry is written and an SVC dump is requested. The newly-connected group buffer pool is disconnected. This reason code and the group buffer pool name are returned to the user in the SQLCA.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1GC1

00C202A7

Explanation: While processing an ALTER GROUPBUFFERPOOL command request, DB2 encountered an unexpected return code from the MVS IXCQUERY service.

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written. An SVC dump is requested if it appears to be a DB2 problem (return code 8 from IXCQUERY). Command processing is terminated.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1AGB

00C202AA

Explanation: An error occurred in IRLM on a physical lock (P-lock) or change request from DB2. This a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. SQLCODE -904 is issued. This reason code and the resource name are returned in the SQLCA.

System Programmer Response: Examine SYS1.LOGREC for a previous error related to IRLM.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, VRARRK30, and VRARRK33.

The information recorded with VRARRK30 is mapped as follows:

- IRLM return code (4 bytes)
- IRLM reason code (4 bytes)
- IRLM function code (1 byte)
- Lock state (1 byte)
- Flags from RLPLFLG1 (1 byte)
- Flags from RLPLFLG4 (1 byte)
- Returned cached state (1 byte)
- Unused (1 byte)
- P-lock exit reason code (2 bytes)

VRARRK33 records information from the RLPLPL (mapped by DXRRPLPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCSTA (1 byte): New cached state of the P-lock for this DB2

- RLPRSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owing work unit

This abend reason code is issued by the following CSECT: DSNB1PER

00C202AB

Explanation: The IRLM UNLOCK request returned an error code when DB2 attempted to release a physical lock (P-lock). This is a DB2 internal error.

System Action: The requesting execution unit abends. The SVC dump and SYS1.LOGREC recording are requested.

User Response: Resubmit the failing application.

System Programmer Response: Request the SYS1.LOGREC and the SVC dump.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, VRARRK30, and VRARRK33.

The information recorded with VRARRK30 is mapped as follows:

- IRLM return code (4 bytes)
- IRLM reason code (4 bytes)
- IRLM function code (1 byte)
- Lock state (1 byte)
- Flags from RLPLFLG1 (1 byte)
- Flags from RLPLFLG4 (1 byte)
- Returned cached state (1 byte)
- Unused (1 byte)
- P-lock exit reason code (2 bytes)

VRARRK33 records information from the RLPPL (mapped by DXRRLPPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCSTA (1 byte): New cached state of the P-lock for this DB2
- RLPRSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owing work unit

This abend reason code is issued by the following CSECT: DSNB1PER

00C202AC

Explanation: There was an error during physical lock (P-lock) negotiation. This is a DB2 internal error.

System Action: An SVC dump and SYS1.LOGREC recording are requested. A 'resource unavailable' condition is returned to the P-lock requester that caused the conflict and the subsequent negotiation.

System Programmer Response: Request the SYS1.LOGREC and the SVC dump.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, and VRARRK33.

VRARRK33 records information from the RLPPL (mapped by DXRRLPPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCSTA (1 byte): New cached state of the P-lock for this DB2
- RLPRSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owing work unit

This abend reason code is issued by the following CSECT: DSNB1PPP

00C202AD

Explanation: DB2 could not start even one castout process. A probable cause is that no virtual storage is available to acquire private buffers for the castout process.

System Action: The requesting execution unit abends and DB2 terminates abnormally.

System Programmer Response: Restart DB2 after increasing the REGION parameter value on the *ssnmDBM1* startup procedure to get more virtual storage.

Problem Determination: This abend reason code is issued by the following CSECT: DSNB5PCO

00C202AE

Explanation: IRLM returned an invalid cached state on a physical lock (P-lock) request from DB2. This is an internal error.

System Action: SQLCODE -904 is issued. A record is written to SYS1.LOGREC and an SVC dump is requested.

System Programmer Response: Examine SYS1.LOGREC for a preceding error related to IRLM.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, VRARRK30, and VRARRK33.

The information recorded with VRARRK30 is mapped as follows:

- IRLM return code (4 bytes)
- IRLM reason code (4 bytes)
- IRLM function code (1 byte)
- Lock state (1 byte)
- Flags from RLPLFLG1 (1 byte)
- Flags from RLPLFLG4 (1 byte)
- Returned cached state (1 byte)
- Unused (1 byte)
- P-lock exit reason code (2 bytes)

VRARRK33 records information from the RLPL (mapped by DXRRLPPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCCSTA (1 byte): New cached state of the P-lock for this DB2
- RLPRSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owing work unit

This abend reason code is issued by the following CSECT: DSNB1PLK

00C202AF

Explanation: There was an incompatible physical lock (P-lock) held. This is a DB2 internal error.

System Action: An SVC dump and SYS1.LOGREC recording are requested. A 'resource unavailable' condition is returned to the P-lock requester that caused the conflict and the subsequent negotiation.

System Programmer Response: Request the SYS1.LOGREC and the SVC dump.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, and VRARRK33.

VRARRK33 records information from the RLPL

(mapped by DXRRLPPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCCSTA (1 byte): New cached state of the P-lock for this DB2
- RLPRSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owing work unit

This abend reason code is issued by the following CSECT: DSNB1PPP

00C202B0

Explanation: This is a DB2 internal error.

System Action: An SVC dump and SYS1.LOGREC recording are requested. A 'resource unavailable' condition is returned to the physical lock (P-lock) requester that caused the conflict and the subsequent negotiation.

User Response: Resubmit the failing application.

System Programmer Response: Request the SYS1.LOGREC and the SVC dump.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, and VRARRK33.

VRARRK33 records information from the RLPL (mapped by DXRRLPPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCCSTA (1 byte): New cached state of the P-lock for this DB2
- RLPRSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owing work unit

This abend reason code is issued by the following CSECT: DSNB1PPP

00C202B1

Explanation: An error occurred during physical (P-lock) negotiation. This is a DB2 internal error.

System Action: An SQLCODE -904 is issued. A record is written to SYS1.LOGREC and an SVC dump is requested. This reason code and the resource name are returned in the SQLCA.

System Programmer Response: Examine

SYS1.LOGREC for a previous error related to IRLM.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields in the VRA for this code are: VRARRK13, VRARRK14, VRARRK15, VRARRK30, and VRARRK33.

The information recorded with VRARRK30 is mapped as follows:

- IRLM return code (4 bytes)
- IRLM reason code (4 bytes)
- IRLM function code (1 byte)
- Lock state (1 byte)
- Flags from RLPLFLG1 (1 byte)
- Flags from RLPLFLG4 (1 byte)
- Returned cached state (1 byte)
- Unused (1 byte)
- P-lock exit reason code (2 bytes)

VRARRK33 records information from the RLPL (mapped by DXRRLPL) and is mapped as follows:

- RLPHSTAT (1 byte): Current held state of the P-lock by this DB2
- RLPCSTA (1 byte): New cached state of the P-lock for this DB2
- RLPSTAT (1 byte): Requested state of the P-lock by the other DB2 that is in conflict with the state held by this DB2
- Unused (1 byte)
- RLPWUID (8 bytes): Owning work unit

This abend reason code is issued by the following CSECT: DSNB1PER

00C202B2

Explanation: DB2 could not obtain a page set or partition physical lock (P-lock).

System Action: A 'resource unavailable' condition is returned to the user. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA.

System Programmer Response: This problem might be caused by having multiple DB2 release levels in the DB2 data sharing group.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs: DSNB1PPP, DSNB1PPG.

00C202B3

Explanation: This is a DB2 internal error. The execution unit encountered an error while doing damage assessment for a group buffer pool.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECTs: DSNB1DAO

00C202B4

Explanation: This is a DB2 internal error. The execution unit received an error return code while doing damage assessment for a group buffer pool.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECTs: DSNB1CPX, DSNB1GC0, DSNB1GC1

00C202B5

Explanation: This is a DB2 internal error. The execution unit received an error return code while doing damage assessment for a group buffer pool.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECTs: DSNB1GC0, DSNB1GC1

00C202B6

Explanation: This is a DB2 internal error. The execution unit received an error return code while trying to translate the DB2 member name to a member ID.

System Action: The requesting execution unit is abended.

00C202B7 • 00C202C4

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECTs: DSNB1DA2

00C202B7

Explanation: This is a DB2 internal error. An unexpected error occurred during recovery processing from a group buffer pool link failure.

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This abend reason code is issued by the following CSECT: DSNB1LNK

00C202C0

Explanation: DB2 timed out waiting for the use count on a group buffer pool to reach zero during rebuild quiesce processing for the group buffer pool. This is a DB2 internal problem.

System Action: The DB2 system agent that is processing the rebuild abends and takes a dump. The rebuild is stopped. Message DSNB335I is issued indicating this reason code as the reason why the rebuild stopped.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1xxx

00C202C1

Explanation: DB2 encountered a problem trying to connect to the new group buffer pool coupling facility structure while trying to rebuild the group buffer pool.

System Action: A dump may or may not be taken depending on the nature of the error. The rebuild is stopped. Message DSNB335I is issued indicating this reason code as the reason why the rebuild stopped.

Problem Determination: Check the console log for previous error messages (for example, DSNB330E or DSNB306I) to determine why DB2 could not connect to the new group buffer pool structure.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1RBC

00C202C2

Explanation: DB2 received an unexpected return and reason code from the MVS IXLREBLD macro during rebuild processing for a group buffer pool.

System Action: The DB2 system agent that is processing the rebuild abends and takes a dump. The rebuild is stopped. Message DSNB340I will be issued indicating that the IXLREBLD request failed and message DSNB335I is issued indicating this reason code as the reason why the rebuild stopped.

Problem Determination: See *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the MVS IXLREBLD reason code.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1xxx

00C202C3

Explanation: DB2 received an unexpected return and reason code from the MVS IXLEERSP macro during rebuild processing for a group buffer pool.

System Action: The DB2 system agent that is processing the rebuild abends and takes a dump. The rebuild is stopped. Message DSNB340I is issued indicating that the IXLEERSP request failed and message DSNB335I is issued indicating this reason code as the reason why the rebuild stopped.

Problem Determination: See *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the MVS IXLEERSP reason code.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1xxx

00C202C4

Explanation: DB2 detected that the number of changed pages in the new structure is greater than the number of changed pages in the original structure at the time that the rebuild of the group buffer pool was about to be completed.

System Action: DB2 abends and takes a dump. The rebuild is stopped. Message DSNB335I is issued indicating this reason code as the reason why the rebuild stopped.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB1xxx

00C202D0

Explanation: DB2 is unable to respond to an event that was reported by MVS. This is a DB2 internal error.

System Action: DB2 terminates abnormally.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump. Restart DB2.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNB5REE

00C202D1

Explanation: This is a DB2 internal error. DB2 encountered an unrecoverable error while trying to add a page to the logical page list (LPL).

System Action: The DB2 subsystem is abnormally terminated.

Operator Response: Notify the system programmer, print SYS1.LOGREC, and request an SVC dump.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNB1LPL

00C20300

Explanation: This is a DB2 internal error. The execution unit attempted to access, claim, or drain a page set or partition, but the page set was not logically opened.

This reason code is issued by the following CSECTs: DSNB1CLM DSNIOPNP DSNISGSC DSNITFFS DSNIWPSC DSNUQUIA

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C20301

Explanation: This is a DB2 internal error. The execution unit attempted to access, claim, or drain a logical partition, but the page set is not a type 2 nonpartitioned page set.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECTs:

DSNB1LCM DSNB1LDN DSNB1CPP DSNBWFOR
DSNBLCM DSNBDRN DSNBDDRN

00C20302

Explanation: This is a DB2 internal error. A page set was not logically opened by the execution unit that was attempting to do one of the following:

- Logical close a page set
- Physical close a page set or partition

This reason code is issued by the following CSECT: DSNB1DDN

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C20303

Explanation: This is a DB2 internal error. A page set is not in-use, but an execution unit was attempting to do one of the following:

- Logical close a page set
- Physical close a page set or partition

This reason code is issued by the following CSECT: DSNB1CPS

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C20304

Explanation: This is a DB2 internal error. During force write processing, the buffer manager detected that the write claim class count is not zero or there are pending updates on the page set or partition.

This reason code is issued by the following CSECT:
DSNB1WFO

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C20305

Explanation: This is a DB2 internal error. The execution unit attempted to access, claim, drain, open, or close a partition or piece, but the partition or piece number is invalid.

This reason code is issued by the following CSECTs:
DSNB1ABP, DSNB1CLM, DSNB1CPP, DSNB1DCM,
DSNB1DDN, DSNB1DRA, DSNB1GET, DSNB1SWS,
DSNICLDR, DSNICLOS, DSNICLTO, DSNICMTC,
DSNICMT2, DSNIDALC, DSNIERST, DSNIWPSC,
DSNIOPNP, DSNIRCLS, DSNISGSC, DSNITFFS,
DSNPXTN0, DSNUQUIA, DSNXISB2

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print the SYS1.LOGREC, and request the SVC dump.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C20306

Explanation: This is a DB2 internal error.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print SYS1.LOGREC, and request an SVC dump.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECTs:
DSNB1GET, DSNB1LTS, DSNB1LTX, DSNB1SWS

00C20307

Explanation: This is a DB2 internal error.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer, print SYS1.LOGREC, and request an SVC dump.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT:
DSNBLTCH

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For information about the CICS transaction abend/dump code DSNB, refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351.

00C30001

Explanation: The CICS attachment facility terminated because of errors that cannot be corrected. The attachment facility task-related user exit detected one of the following conditions:

- The life of task block (LOT) is invalid.
- The LOT and connection control table (CCT) element were disconnected before the end of a unit of recovery
- The previous application program support (APS) call failed and a commit call is being attempted

These symptoms might be caused by an overlay of the LOT and/or the CCT.

This abend reason code is issued by the following CSECTs: DSNBMSUB DSN2MSUB

System Action: The CICS attachment facility terminates.

Operator Response: Notify the system programmer.

System Programmer Response: Analyze the dumps and system console messages for storage violations.

Problem Determination: One or more control blocks do not pass validity checks. The most probable cause is that they were overlaid by some user application. A CICS dump (DSNB) and a subtask dump (system abend X'04E' with abend reason code 00C30001) were requested. Register 9 in the CICS transaction dump contains the address of the LOT.

If the LOT is valid, CLOTCTE contains the CCT element address, and CCCTLOT contains the LOT address. Use these pointers (CLOTCTE and CCCTLOT) to verify the validity of the LOT and the CCT element. Both control blocks should contain seven character eye catchers (DSNBLOT and DSNBCCCT or DSN2LOT and DSN2CCT). If they are in error, check the application program for possible storage violations.

00C30002

Explanation: The CICS attachment facility was not able to start.

This abend reason code is issued by the following CSECTs: DSNBMSUB DSN2MSUB

System Action: The CICS attachment facility terminates.

Operator Response: Notify the system programmer.

Problem Determination: A subtask dump (system

abend X'04E' with abend reason code 00C30002) is requested unless FRBRC2 equals 00F30013 or 00F30058. Within the dump, register 7 contains the address of the resource control table load module. In this load module, location CRCTCCTA contains the address of the connection control table (CCT) in subpool 99. The CCT contains the FRB control block for the IDENTIFY to DB2. The FRB control block begins at CCCTFRB within the CCT. You can also locate the FRB with the CCT control block by scanning the CCT for the FRB character string eye catcher. The FRB contains two fields, FRBRC1 and FRBRC2, which contain the return code and reason code from the IDENTIFY to the DB2 subsystem.

00C30003

Explanation: The CICS attachment facility could not complete a recover indoubt call because of the return and reason codes from DB2.

This abend reason code is issued by the following CSECTs: DSNBMSUB DSN2MSUB

System Action: The CICS attachment facility terminates. The unit of recovery (UR) is not resolved and remains indoubt.

Operator Response: Notify the system programmer.

Problem Determination: The return code from the recover indoubt process does not allow the CICS attachment facility to complete the unit of recovery (UR). If the UR included in the error is valid, an attempt should be made to resolve the UR manually, using the DB2 -RECOVER command.

A subtask dump (system abend X'04E' with abend reason code 00C30003) is requested. Register 7 contains the address of the resource control table. Location CRCTCCTA in load module DSNCRCTx or DSN2CTxx contains the address of the connection control table (CCT) in subpool 99.

The CCT contains the FRB control block, which can be located by scanning the CCT for the FRB character string eye catcher. FRBRC1 and FRBRC2 contain the return code and reason code from DB2.

A nonzero return code indicates problems specified by the reason code. Higher return codes (4, 8, and 12) indicate higher severity.

Examine the MVS console for DB2 messages that might indicate any related errors. If an SVC dump was also taken, print it as well as the SYS1.LOGREC to obtain further diagnostic information. The CICS SYSTEM LOG

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might help to determine the final disposition of the indoubt unit of work.

Register 6 in the subtask abend dump plus X'20' contains the address of a 16-byte area that contains the network id (NID). The last 8 bytes of the NID contain the store clock value that was passed to DB2 by CICS to identify the logical unit of work (LUW). This value can be used to correlate the DB2 unit of recovery with the CICS logical unit of work.

00C30004

Explanation: A thread subtask failed because of a validity check failure of a transaction-related life of task block (LOT).

This abend reason code is issued by the following CSECTs: DSNCEXT3 DSN2EXT3

System Action: The CICS attachment facility continues operation; however, the one subtask is abended and a subtask dump (system abend X'04E' with abend reason code 00C30004) is requested.

Because the LOT contains an ECB on which the CICS application is waiting and this error indicates the LOT was overlaid, the effect on the CICS application is unpredictable.

Operator Response: Notify the system programmer.

Problem Determination: The most probable cause is that the LOT was overlaid by some user application. In the subtask abend dump, register 7 contains the address of the resource control table (RCT).

CRCTCCTA in the RCT contains the address of the CCT, and CCCTLN in the CCT contains its length. Register 9 contains the CCT element that was assigned to the application in error.

This CCT element address can be validated by ensuring that it lies within the CCT. If the CCT address is valid, CCCTLOT contains the address of the LOT in error. To determine the source of the error, analyze the subtask dump and check the CICS master terminal for any storage violation messages.

00C30005

Explanation: The CICS attachment facility could not complete a commit or abort call for a transaction because of return codes from the application program support call.

This abend reason code is issued by the following CSECTs: DSNCEXT3 DSN2EXT3

System Action: The CICS attachment facility continues operation, but the one subtask abends with a subtask dump (system abend X'04E' with abend reason code 00C30005). The CICS transaction that is associated with the abend is also abended with a CICS transaction dump

Operator Response: Notify the system programmer.

Problem Determination: The return code from the commit or abort does not allow the CICS attachment facility to complete the transaction's unit of recovery. Register 7 in the subtask dump contains the address of the resource control table (RCT).

Location CRCTCCTA in the RCT load module contains the address of the connection control table (CCT) in subpool 99. CCCTCSUB in the CCT contains the address of the subtask work area (CSUB or C2UB).

The subtask work area contains the FRB control block, which you can locate by scanning DSNCSUB or DSN2SUB for the FRB character string eye catcher. FRBRC1 and FRBRC2 contain the return code and reason code from DB2.

A nonzero return code indicates trouble specified by the reason code. Higher return codes (4, 8, and 12) indicate higher severity.

Refer to the reason code in Part 4, "Section 4. DB2 Codes," on page 773 and prepare a search argument, using the reason code as the appropriate keyword. If the reason code is not listed, it is an internal code that is useful only as a keyword.

If an SVC dump was also taken, print it and the SYS1.LOGREC to obtain further diagnostic information.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C30006

Explanation: The CICS attachment facility failed because of return codes from the MVS ATTACH macro while attempting to start a thread subtask.

This abend reason code is issued by the following CSECTs: DSNCMSUB DSN2MSUB

System Action: The CICS attachment facility terminates.

Operator Response: Notify the system programmer.

Problem Determination: A subtask dump (system abend X'04E' with abend reason code 00C30006) is requested. To determine why the ATTACH failed, use the MVS dump, MVS system trace, SYS1.LOGREC, and MVS console listing. Refer to the appropriate MVS publication to interpret the meaning of return codes from the MVS ATTACH macro.

00C30007

Explanation: The start of the CICS attachment facility failed because of return codes while attempting to establish a shutdown listen exit with DB2.

This abend reason code is issued by the following CSECTs: DSNCMSUB DSN2MSUB

System Action: The CICS attachment facility terminates.

Operator Response: Notify the system programmer.

Problem Determination: The return code from the establish exit process does not allow the CICS attachment facility to start. A subtask dump (system abend X'04E' with abend reason code 00C30007) is requested. Register 7 contains the address of the resource control table (RCT).

Location CRCTCCTA in the RCT load module (DSNCRCTx or DSN2CTxx) contains the address of the connection control table (CCT) in subpool 99. The CCT contains the FRB control block, which can be located by scanning the CCT for the FRB character string eye catcher. FRBRC1 and FRBRC2 contain the return code and reason code from DB2.

A nonzero return code indicates trouble specified by the reason code. Higher return codes (4, 8, and 12) indicate higher severity.

Refer to the reason code in Part 4, "Section 4. DB2 Codes," on page 773. If the reason code is not listed, it is an internal code that is useful only as a keyword.

If an SVC dump was also taken, print it as well as the SYS1.LOGREC to obtain further diagnostic information.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C30008

Explanation: The start of the CICS attachment facility failed while attempting to establish an ESTAE recovery exit. because of reasons indicated by the return codes.

This abend reason code is issued by the following CSECTs: DSNCMSUB DSN2MSUB

System Action: An X'04E' abend subtask dump is taken, and the CICS attachment facility remains partially initialized.

Operator Response: Notify the system programmer, and issue the DSNCR STOP FORCE command.

Problem Determination: The return code from the ESTAE macro does not allow the CICS attachment facility to start. A subtask dump (system abend X'04E' with abend reason code 00C30008) is requested. To determine why the ESTAE failed, use the MVS dump, MVS system trace, SYS1.LOGREC, and MVS console listing. The MVS trace contains the return code from the ESTAE macro. Refer to the appropriate MVS publication for the meaning of return codes from the MVS ESTAE macro.

00C30009

Explanation: The CICS attachment facility failed because of the return code and reason code from DB2 for the SHOW INDOUBT units of recovery process.

This abend reason code is issued by the following CSECTs: DSNCMSUB DSN2MSUB

System Action: The CICS attachment facility terminates, and a subtask dump is requested.

Operator Response: Notify the system programmer.

Problem Determination: The return code from the SHOW INDOUBT process does not allow the CICS attachment facility to continue. A subtask dump (system abend X'04E' with abend reason code 00C30009) is requested. Register 7 contains the address of the resource control table (RCT).

Location CRCTCCTA in the RCT load module (DSNCRCTx or DSN2CTxx) contains the address of the connection control table (CCT) in subpool 99. The CCT contains the FRB control block, which can be located by scanning the CCT for the FRB character string eye catcher. FRBRC1 and FRBRC2 contain the return code and reason code from DB2.

A nonzero return code indicates trouble specified by the reason code. Higher return codes (4, 8, and 12) indicate higher severity. Analyze the subtask dump.

Refer to the reason code in Part 4, "Section 4. DB2 Codes," on page 773. If the reason code is not listed, it is an internal code that is useful only as a keyword.

If an SVC dump was also taken, print it and the SYS1.LOGREC to obtain further diagnostic information.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C30010

Explanation: An IDENTIFY call to DB2 from a CICS attachment facility connection subtask failed, indicating that DB2 is no longer active.

This abend reason code is issued by the following CSECTs: DSNCEXT3 DSN2EXT3

System Action: A subtask dump is requested for the failing task thread, and the automatic STOP of the CICS attachment facility is initiated.

Operator Response: Notify the system programmer.

Problem Determination: Some other error, which is the source of the failure, probably occurred prior to this action. Use the subtask dump, SYS1.LOGREC, MVS console listing, and any SVC dumps that might have been requested if DB2 failed.

00C30011

Explanation: The CICS attachment facility detected that a resource control table (RCT) entry was corrupted or overlaid since the CICS attachment facility was last started.

This abend reason code is issued by the following CSECTs: DSNCEXT3 DSN2EXT3

System Action: The CICS attachment facility abends CICS task with a CICS transaction abend.

Operator Response: Notify the system programmer.

System Programmer Response: Stop and then restart the CICS attachment facility to refresh the RCT.

Problem Determination: Analyze the CICS dumps to determine which CICS trans-id and corresponding RCT entries were affected. The CICS transaction dump contains the RCT storage at the time of the failure. Location CRCTAUWD in the affected RCT entry was altered since the CICS attachment facility was last started. This might be caused by an application program modifying storage it does not own (a CICS storage violation).

00C30020

Explanation: A previous error occurred during create thread processing which put the transaction in a must-abort state. The only request allowed in this state is a SYNCPOINT ROLLBACK.

This abend reason code is issued by the following CSECTs: DSNCEXT1 DSN2EXT1

System Action: The transaction is placed in a must-abort state and remains in that state until the transaction terminates or issues a SYNCPOINT ROLLBACK. Any SQL statement issued by a transaction while in a must-abort state receive an SQLCODE -906. SYNCPOINT requests without the ROLLBACK option cause an ASP7 abend.

User Response: If the create thread error was anticipated, and the transaction can correct the situation that caused the create thread error, the transaction might issue a SYNCPOINT ROLLBACK and continue processing.

System Programmer Response: If it is undesirable for a transactions to continue after create thread errors, reassemble the resource control table (RCT) and change the PCTEROP parameter to AEY9, or remove it completely and take the default.

Problem Determination: Unless PCTEROP=N906, this error reason code is preceded by a DSNCEXT3 transaction dump, which provides diagnostic information about the create thread failure. The SQLCA also contains the SQL return code identifying the create thread error.

00C30021

Explanation: The CICS attachment facility detected an application which is using the instrumentation facility interface (IFI) and is link-edited with a back level version of the CICS attachment facility language interface module DSNCLI.

This abend reason code is issued by the following CSECTs: DSNCEXT1 DSN2EXT1

System Action: The transaction is abended with a DSNCEXT1 abend. The life of task block (LOT) contains reason code 00C30021.

User Response: Relink-edit the application with the appropriate version of the CICS attachment facility language interface module DSNCLI which corresponds to the current CICS attachment facility maintenance level.

System Programmer Response: Ensure the appropriate level of the CICS attachment facility language interface module DSNCLI is available to all users. Discard any back level version of DSNCLI.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the problem continues to occur after link-editing the application again with the proper level of the CICS attachment facility language interface module, validate that the correct DSNCLI is being used.

The eye catcher in DSNCLI should have the proper maintenance level identified. Look at the DSNCLI, which is actually link-edited with the application to ensure the proper level.

00C30100

Explanation: An application attempted to issue an SQL request when the CICS attachment was not operational. This reason code results when the attachment is in STANDBY mode and the RCT STANDBY option is "SQLCODE".

System Action: The SQL request is not executed.

User Response: Wait until the CICS attachment facility is started. Then resubmit the transactions that failed.

Operator Response: Restart the CICS attachment facility after ensuring that DB2 is active.

System Programmer Response: Collect any dumps produced by the CICS attachment facility or DB2, the MVS system console log, and any record of -STOP DB2 commands that might have been issued. Determine if the termination of the CICS attachment facility was the result of a DB2 stop command or abnormal termination of DB2.

Problem Determination: The CICS attachment facility was in standby mode. This occurs if DB2 stops and the RCT STANDBY option is "SQLCODE". Locate all the CICS attachment facility dumps and all DB2 termination dumps. Follow the problem determination procedures documented for the error conditions that caused the dumps to be produced.

attachment facility detected an unexpected condition, if the DB2 STOP MODE(FORCE) command was issued, or if DB2 abnormally terminated. If the stop command with the force option was not issued, locate all the CICS attachment facility abnormal termination dumps and all DB2 abnormal termination dumps. Follow the problem determination procedures documented for the error conditions that caused the dumps to be produced.

00C30200

Explanation: An application attempted to issue an SQL request but no thread resource was available for that request. This reason code results when the CICS-DB2 attachment DB2ENTRY definition for the transaction is disabled.

System Action: The SQL request is not executed.

User Response: Retry the transaction after the DB2ENTRY has been reenabled.

System Programmer Response: Enable the transaction's DB2ENTRY or set the DISABLEDACT to POOL to allow transactions in that entry to run.

00C30805

Explanation: The caller's connection with DB2 terminated because the CICS attachment facility is terminating in stop force mode. This reason code indicates that the CICS attachment facility is terminating because stop force was initiated. Stop force was probably initiated by the DSNB STOP FORCE command, the STOP DB2 MODE(FORCE) command, DB2 abnormally terminating, or the CICS attachment facility abnormally terminating. If a command was not used to cause stop force processing, abnormal termination dumps are produced by either DB2 if it is abnormally terminating, or by the CICS attachment facility if it is abnormally terminating.

This abend reason code is issued by the following CSECTs: DSNCEXT1 DSN2CEXT1

System Action: All current requests are returned with an indication that the CICS attachment facility is terminating.

User Response: Wait until the CICS attachment facility is restarted; then resubmit the transactions that failed.

Operator Response: Restart the CICS attachment facility after ensuring that DB2 is active.

System Programmer Response: Collect any dumps produced by the CICS attachment facility or DB2, the MVS system console log, and any record of DSNB STOP commands that might have been issued. Determine if the termination of the CICS attachment facility was the result of a STOP command or abend.

Problem Determination: The CICS attachment facility was forced into termination. This occurs if the DSNB STOP FORCE command is issued, if the CICS

Chapter 35. X'C5.....' codes

For these codes, the standard documentation to be collected is a SYSUDUMP and a printout of the DSNTRACE data set. The standard SPUFI documentation is a SYSUDUMP and a printout of the ISPF log for this session. A SYSUDUMP data set must be allocated in advance to collect your dump. A DSNTRACE data set must be allocated in advance to collect your DSN trace stream unless you are running in the background, in which case the SYSTSPRT data set contains the DSNTRACE output. ISPF normally runs with an active log data set. ISPF suppresses dumps unless it is invoked with the TEST parameter. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

In the TSO attachment facility, the user can control whether or not message IDs are displayed. To see them, type PROFILE MSGID. To suppress them, type PROFILE NOMSGID.

The following abends can occur in the TSO attachment facility.

00C50001

Explanation: This is probably a DB2 subsystem error. DSNESM30 has detected an illegal value in the YTYPE portion of the SQLTYPE field of the SQLDA.

This abend reason code is issued by the following CSECT: DSNESM30

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard SPUFI documentation should be collected. Refer to Chapter 35, "X'C5.....' codes" for information about obtaining dumps and displaying message IDs.

Problem Determination: An illegal value was detected in the SQLTYPE field of the SQLDA. This may have been caused by this field being overlaid in error. To determine the source of the error, analyze the SQLDA in the storage dump.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 21.

00C50002

Explanation: This is probably a DB2 subsystem error. DSNESM32 has detected an illegal value in the YTYPE portion of the SQLTYPE field of the SQLDA. This suggests that an illegal value was in the SQLTYPE field of the SQLDA.

This abend reason code is issued by the following CSECT: DSNESM32

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard

SPUFI documentation should be collected. Refer to Chapter 35, "X'C5.....' codes" for information about obtaining dumps and displaying message IDs.

Problem Determination: An illegal value was detected in the YTYPE of the SQLDA. This may have been caused by this field being overlaid in error. Analyze the SQLDA in the storage dump to determine the source of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 21.

00C50003

Explanation: This could be either a user or a system error. SPUFI was unable to obtain the required storage via GETMAIN.

This abend reason code is issued by the following CSECTS: DSNESM10, DSNESM20

System Action: SPUFI task abends. User returns to ISPF main menu.

User Response: If the problem persists, notify the system programmer. You may have to specify a larger machine size at logon time.

System Programmer Response: If the problem persists, the standard SPUFI documentation should be collected. Refer to Chapter 35, "X'C5.....' codes" for information about obtaining dumps and displaying message IDs.

Problem Determination: Register 2 contains the amount of storage that was requested. Message DSNE392E, in the ISPF log data set, gives the name of the module that issued this abend.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 4, 21.

00C50005

Explanation: This could be either a user or a system error. The DYNALLOC SVC returned an unexpected return code when attempting to allocate a data set.

This abend reason code is issued by the following CSECT: DSNESM55

System Action: The contents of the field are written to the ISPF log.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard SPUFI documentation should be collected. Refer to Chapter 35, "X'C5.....' codes," on page 827 for information about obtaining dumps and displaying message IDs.

Problem Determination: Message DSNE381E, in the ISPF log data set, gives the return code and reason code values returned from the dynamic allocation request. Refer to the appropriate MVS publication to determine the source of the error and analyze these values.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 21.

00C50007

Explanation: This is probably an error in the SPUFI code. The field describing the record format of the output data set is not valid.

This abend reason code is issued by the following CSECT: DSNESM55

System Action: The contents of the field are written to the ISPF log.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard SPUFI documentation should be collected. Refer to Chapter 35, "X'C5.....' codes," on page 827 for information about obtaining dumps and displaying message IDs.

Problem Determination: Message DSNE383A, in the ISPF log data set, gives the record format of the output data set that was determined to be in error. The output data set record format must be one of the following: F, FB, FBA, V, VB, or VBA.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 21.

00C50008

Explanation: This could be either a user or a system error. The DYNALLOC SVC returned an unexpected return code when attempting to deallocate a data set.

This abend reason code is issued by the following CSECT: DSNESM55

System Action: The contents of the field are written to the ISPF log

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard SPUFI documentation should be collected. Refer to Chapter 35, "X'C5.....' codes," on page 827 for information about obtaining dumps and displaying message IDs.

Problem Determination: Message DSNE384E, in the ISPF log data set, gives the return code and reason code values returned from the dynamic allocation request. Analyze these values to determine the source of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 21.

00C50009

Explanation: This is probably caused by an error in the SPUFI code. The SQLCODE translation service (module DSNTIAR) has returned an unexpected return code.

This abend reason code is issued by the following CSECT: DSNESM40

System Action: The contents of the field have been written to the ISPF log.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard SPUFI documentation should be collected. Refer to Chapter 35, "X'C5.....' codes," on page 827 for information about obtaining dumps and displaying message IDs.

Problem Determination: Message DSNE387A, in the ISPF log data set, gives the return code value returned from DSNTIAR. The meanings of these return codes are:

- 4** More data was available than could fit into the message area provided.
- 8** The LRECL was not within the limits: $72 \geq LRECL \leq 240$
- 12** The message area was not large enough. Message length ≥ 240
- 16** Error in message routine (IKJEFF02).

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 21.

00C50100

Explanation: This is probably caused by an error in the DSN command processor code. Module DSNECP66 (in the DSN command processor) called module DSNTIAR to format an error message to explain an unexpected SQL return code received by DCLGEN. DSNTIAR failed.

This abend reason code is issued by the following CSECT: DSNECP66

User Response: If the problem persists, notify the system programmer.

System Programmer Response: The standard documentation should be collected, including a DSN trace stream. Refer to Chapter 35, "X'C5.....' codes," on page 827 for information about obtaining dumps and displaying message IDs.

Problem Determination: Message DSNE004E in the output gives the return code value returned from DSNTIAR. For an explanation of these return codes, see abend reason code '00C50009'.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 20.

00C50101

Explanation: The user has entered the ABEND subcommand of the DSN command processor. This causes a X'04E' abend and a dump to be requested. In order to retain the dump, you must have previously allocated a SYSUDUMP or SYSADUMP data set. The ABEND subcommand can be useful for debugging.

This abend reason code is issued by the following CSECT: DSNECP19

System Action: A X'04E' abend results, and a dump is requested.

System Programmer Response: The standard documentation may be needed. Refer to Chapter 35, "X'C5.....' codes," on page 827 for information about obtaining dumps and displaying message IDs.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 20.

00C50102

Explanation: An error probably occurred in DB2 while it attempted to process an IDENTIFY request from the DSN command processor. DSN received an unexpected return code (FRBRC1 or FRBRC2) from DB2.

This abend reason code is issued by the following CSECT: DSNECP12

System Action: Immediately after writing this message, DSN abends with an abend code of X'04E' and an abend reason code of '00C50102'.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: See the Problem Determination section of this message.

Problem Determination: Rerun the job with DSN tracing turned on. You may need a SYSUDUMP from the TSO address space. You probably need a DB2 dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 20.

00C50103

Explanation: An error probably occurred in DB2 while it attempted to process an ESTABLISH EXIT request from the DSN command processor. DSN received an unexpected return code (FRBRC1 or FRBRC2) from DB2.

This abend reason code is issued by the following CSECT: DSNECP12

System Action: Immediately after writing this message, DSN abends with an abend code of X'04E' and an abend reason code of '00C50103'.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: See the Problem Determination section of this message.

Problem Determination: Rerun the job with DSN tracing turned on. You may need a SYSUDUMP from the TSO address space. You probably need a DB2 dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 20.

00C50104

Explanation: An error probably occurred in DB2 while it attempted to process a CREATE THREAD request from the DSN command processor. DSN received an unexpected return code (FRBRC1 or FRBRC2) from DB2.

This abend reason code is issued by the following CSECT: DSNECP13

00C50108 • 00C50111

System Action: Immediately after writing this message, DSN abends with an abend code of X'04E' and an abend reason code of '00C50104'.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: See the Problem Determination section of this message.

Problem Determination: Rerun the job with DSN tracing turned on. You may need a SYSUDUMP from the TSO address space. You probably need a DB2 dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 20.

00C50108

Explanation: An error probably occurred in DB2 while it attempted to process a BIND, REBIND, or FREE request from the DSN command processor. DSN received an unexpected return code (FRBRC1 or FRBRC2) from DB2.

This abend reason code is issued by the following CSECT: DSNECP30

System Action: Immediately after writing this message, DSN abends with an abend code of X'04E' and an abend reason code of '00C50108'.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: See the Problem Determination section of this message.

Problem Determination: Rerun the job with DSN tracing turned on. You may need a SYSUDUMP from the TSO address space. You probably need a DB2 dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 20.

00C50109

Explanation: An error probably occurred in DB2 while it attempted to process a TERMINATE request from the DSN command processor. DSN received an unexpected return code (FRBRC1 or FRBRC2) from DB2.

This abend reason code is issued by the following CSECT: DSNECP18

System Action: Immediately after writing this message, DSN abends with an abend code of X'04E' and an abend reason code of '00C50109'.

User Response: If the problem persists, notify the system programmer.

System Programmer Response: See the Problem Determination section of this message.

Problem Determination: Rerun the job with DSN tracing turned on. You may need a SYSUDUMP from the TSO address space. You probably need a DB2 dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 20.

00C50110

Explanation: This is a DSN command processor error. It occurs when the DSN STAX routine (DSNEBP01) is entered and the DSN control blocks cannot be located; the AEPLUSR field did not contain the CIB address.

This code is issued by the following CSECT: DSNECP01

Severity: 4

System Action: The DSN command processor abended.

User Response: If you allocated a SYSUDUMP or SYSABEND dump data set, collect the dump. Otherwise, allocate SYSUDUMP and DSNTRACE data sets, turn on DSN tracing, and try to recreate the error. Save these data sets.

00C50111

Explanation: Your application program made an instrumentation facility component application program interface (instrumentation facility interface) call to DB2 language interface module DSNELI, but your application program was not running under the DSN command processor. You must run all application programs using DSNELI under DSN. To do this, first issue the DSN command, then start your application using the RUN subcommand of the DSN command processor, and finally, when the application completes, stop DSN with an END subcommand.

This reason code is issued by the following CSECT: DSNELI

System Action: Control returns to the application. Your application can continue processing. Further attempts at instrumentation facility interface (IFI) calls will continue to produce this return and reason code.

User Response: Rerun your application under the DSN command processor.

Operator Response: Notify your system programmer.

System Programmer Response: Modify the job to

invoke DSN. Initiate the application program using the RUN subcommand of the DSN command processor.

Chapter 36. X'C6.....' code

00C60001

Explanation: DB2 received return code X'20' when issuing a WTO request to display a DB2 console message. MVS sets this return code when there are no message buffers for either Multiple Console Support (MCS) or JES3, or when there is a JES3 WTO staging area excess. The WTO request is terminated. The current DB2 console message and all subsequent DB2 informational console messages are ignored until the MVS problem is corrected.

At the time of the abend, general register zero contains the return code from WTO request.

This abend reason code is issued by the following CSECT: DSNFWTO

System Action: A record is written to SYS1.LOGREC. A retry is requested and execution continues. DB2 resumes issuing console messages when the condition is corrected.

Chapter 37. X'C8.....' codes

Abends in the precompiler are not intercepted via ESTAE, so standard system abends might occur. The SYNAD exit is not used, so I/O errors cause S001 or S002 abends. S04E abends are generated for precompiler internal errors. Following is a list of reason codes.

00C8901x

Explanation: An internal precompiler/parser consistency check failed. An S04E abend is generated. The error type and reason code are found in register 15 of the dump.

In the reason code, x is one of the following:

- 1 Parser received a token code of 0 from a lexical scan. A lexical scan refers to a scan of words rather than syntax.
- 2 Error in storage suballocation control blocks. The error might occur when a DB2 SQL statement limitation is exceeded. The SQL statement might be referencing, creating, or declaring more columns than the DB2 defined maximum number allowed for an SQL statement. Another possibility is that too many host variables are being referenced in the SQL statement.
- 3 Error in storage suballocation request. This error might occur because of storage constraints when building the DBRM entry for the SQL statement or because the SQL statement exceeds the DB2 maximum statement length.
- 4 Error in pointer structures.
- 5 Host variable information in the precompiler/parser dictionary or in the DBRM is not consistent with host variable information for an SQL statement. The error might occur when the precompiler misinterprets an illegal host variable declaration.
- 6 Unexpected value for parser option.
- 7 Internal limit exceeded. A fully qualified name exceeds the maximum length of 255 characters.
- 8 Internal conversion error. An error occurred when converting a timestamp version-id.
- 9 Internal stack storage exhausted.
- A Language Environment required, but not available.

System Programmer Response: Obtain the SVC dump and a copy of the application program source. If

the abend reason code is 00C89015, obtain a copy of the DBRM being bound (IEBCOPY).

00C89041

Explanation: More storage is needed, but could not be obtained during the precompiler execution. An S04E abend occurs. The error type and reason code are found in register 15 of the dump.

This reason code is issued by the following CSECT: DSNHCORE

System Programmer Response: The storage required for the current statement could not be acquired or exceeds the maximum (64KB) for a single request. If the region is full, determine if the region can be expanded. If it cannot be expanded, the SQL statement is too large to be processed.

Chapter 38. X'C9.....' codes

00C9007D

Explanation: The compression dictionary for the table space or partition cannot be stored in the table space or partition. Therefore, the LOAD or REORG utility cannot complete successfully.

This abend reason code is issued by the following CSECTs: DSNIZLDL, DSNIDL0D

System Action: The table space or partition is implicitly stopped by DB2. Messages DSNT501I and DSNIO04I are displayed to inform the operator that the dictionary and the object for which the dictionary is defined are unavailable. An SQLCODE -904 is returned to the SQL end user.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the problem and resubmit the LOAD or REORG job. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C9007E

Explanation: The compression dictionary for the table space or partition was not successfully retrieved. Therefore, the data request failed.

This abend reason code is issued by the following CSECTs: DSNIRFNX, DSNIRLPG, DSNICUMR, DSNIMSMS, DSNINXPT, DSNIRIDC, DSNIRNXT, DSNIRSET, DSNISRID, DSNISFS, DSNISFX, DSNISRTI, DSNICUMW, DSNILREP, DSNIMS1W, DSNIRELF, DSNIRELS, DSNIREDR, DSNIENSR

System Action: The table space or partition is implicitly stopped by DB2. Messages DSNT501I and DSNIO04I are displayed to inform the operator that the dictionary and the object for which the dictionary is defined are unavailable. An SQLCODE -904 is returned to the SQL end user.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the problem and inform the user to resubmit the request. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C9007F

Explanation: The compression dictionary for the table space or partition is invalid. Therefore, the table space or partition cannot be opened.

This abend reason code is issued by the following CSECT: DSNIZLDR

System Action: The table space or partition is implicitly stopped by DB2. Messages DSNT501I and DSNIO04I are displayed to inform the operator that the dictionary and the object for which the dictionary is defined are unavailable. An SQLCODE -904 is returned to the SQL end user.

Operator Response: Notify the system programmer.

System Programmer Response: Recover and start the table space or partition and tell the user to resubmit the request.

00C90080

Explanation: An attempt was made to allocate a resource for update operations. However, the resource was already started for read-only access.

This reason code is issued by the following CSECTs:

DSNIDBCA DSNIDBCI DSNIDBCN DSNIDBCP
DSNIDBET

System Action: The allocation process is not allowed.

User Response: Determine when the resource is started for read/write access, and rerun the job.

Operator Response: If this reason code appears in message DSNT501I, determine whether the named resource should be started for read-only access.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT501I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11 or to the description of the DSNT501I message in Chapter 18, "DSNT... Messages," on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32.

00C90081

Explanation: An attempt was made to allocate a resource that is stopped for all access.

This reason code is issued by the following CSECTs:

00C90082 • 00C90083

DSNIDBCA DSNIDBCI DSNIDBCJ DSNIDBCN
DSNIDBCO DSNIDBCP DSNIDBCQ DSNISTDB
DSNISTPS

System Action: The allocation process is not allowed.

User Response: Determine when the resource is no longer stopped, and rerun the job.

Operator Response: If this reason code appears in message DSNT500I or DSNT501I, determine whether the resource should be stopped.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued, and/or message DSNT500I or message DSNT501I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," or to the description of the DSNT500I or DSNT501I message in Chapter 18, "DSNT... Messages."

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32.

00C90082

Explanation: An attempt was made to allocate a resource that is already allocated to a DB2 utility function.

This reason code is issued by the following CSECTs:

DSNIDBCJ DSNIDBCO DSNIDBCQ

System Action: The allocation process is not allowed.

User Response: Determine when the resource is available and rerun the job.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued, and/or message DSNT501I is issued. The resource allocated to the DB2 utility function might be either in use by a utility or reserved for a utility. If the resource is reserved for a utility, but not currently in use, the -DISPLAY UTILITY command will indicate that no utilities are operating on that object. To access a resource that is reserved for a utility, use the -TERM UTILITY command. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11, or to the description of the DSNT501I message in Chapter 18, "DSNT... Messages," on page 417.

SYS1.LOGREC contains information in the variable

recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32, 72.

00C90083

Explanation: An attempt was made to allocate a resource for update operations. However, the resource is already allocated to a DB2 utility function that allows other users to have read-only access.

This reason code is issued by the following CSECTs:

DSNIDBCJ DSNIDBCO DSNIDBCQ

System Action: DB2 determines whether there is a utility function that would prohibit allocation of the resource. If it finds an indication of a such a utility, the allocation of the resource is not allowed.

User Response: Determine when the resource is no longer restricted by a utility and is started for read/write access, and rerun the job.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued, and/or message DSNT501I is issued.

The resource allocated to the DB2 utility function might be either in use by a utility or reserved for a utility. If the resource is reserved for a utility, but not currently in use, the -DISPLAY UTILITY command will indicate that no utilities are operating on that object. The -DISPLAY DATABASE command shows which restrictive states DB2 assigned to the resource in question. Utilities set a restrictive state (for example, UTRO) on the resource that they are processing, and then remove this state when the utility successfully completes. Therefore, if the -DISPLAY DATABASE command is issued after the successful completion of the utility, the restrictive state set by the utility is not displayed. To access a resource that is reserved for a utility, use the -TERM UTILITY command. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11, or to the description of the DSNT501I message in Chapter 18, "DSNT... Messages," on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in

Appendix B, “Problem determination,” on page 1353: 1, 3, 5, 32, 72.

00C90084

Explanation: The temporary file with the page size shown in NAME is not available. An error was detected either during the opening of the page set or during the formatting of the header and the space map pages of the page set.

This reason code is issued by the following CSECTs: DSNIWKFL, DSNITFFS

System Action: DB2 startup/restart continues if this reason code appears in a DSNT500I message issued during the startup process.

If the reason code appears in a DSNT500I message issued during the -START DATABASE command, the request fails. In either case, the temporary file function does not allocate any temporary file on the page set.

User Response: Delete and redefine the temporary data set(s) in question, and then issue the -START DATABASE command to start the temporary file.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in Part 2, “SQL return codes,” on page 11, or to the description of the DSNT500I message in Chapter 18, “DSNT... Messages,” on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 3, 4, 5, 10, 32.

00C90085

Explanation: The limit of 253 extends for a temporary file has been reached.

One of the following could be the reason.

- Large number of concurrent transactions requiring use of temporary files.
- Small primary/secondary quantity defined for table space(s) in temporary file database.
- Inadequate space allocated to temporary file database.

This reason code is issued by the following CSECT: DSNIWCUB

System Action: The request to extend temporary file is not allowed.

User Response: To resolve the above situation, do one of the following:

- Reduce the number of concurrent transactions.
- Increase primary/secondary quantity defined for the table space(s) in the temporary file database.
- Increase space allocated to temporary file database.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in Part 2, “SQL return codes,” on page 11, or to the description of the DSNT500I message in Chapter 18, “DSNT... Messages,” on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 3, 5, 17, 32, 52.

00C90086

Explanation: An attempt was made to allocate a resource that is started for DB2 utility access only.

This reason code is issued by the following CSECTs:

DSNIDBCA DSNIDBCI DSNIDBCN DSNIDBCP

System Action: The allocation process is not allowed.

User Response: Determine when the resource is available for use, and rerun the job.

Operator Response: If this reason code appears in message DSNT501I, determine whether the resource should be started for utility access only.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued, and/or message DSNT501I is issued. For more information, refer to the SQL code in Part 2, “SQL return codes,” on page 11, or to the description of the DSNT500I message in Chapter 18, “DSNT... Messages,” on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 3, 5, 32.

00C90087

Explanation: A page that is marked as 'broken' has been read. The database, table space or index space, and the page number are identified in NAME.

This reason code is issued by the following CSECT: DSNIADBR

System Action: The data manager function that detected this condition returns a 'resource not available' condition to its invoker. Access to the page is not permitted until it is repaired.

User Response: If the TYPE is '00000300', examine the name to determine if the page is in an index space or a table space. Use the REPAIR utility to fix the broken page.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11, or to the description of the DSNT500I message in Chapter 18, "DSNT... Messages," on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32.

00C90088

Explanation: The resource identified by NAME in message DSNT501I is involved in a deadlock condition.

This reason code is issued by the following CSECT: DSNILMCL

System Action: The requested operation is not performed.

User Response: Rerun the application.

System Programmer Response: If the deadlock condition becomes chronic, examine the mix of applications running to determine why the deadlock is occurring.

Problem Determination: The requested operation is not performed. An SQLCODE -911, -913, or -923 is issued, and/or message DSNT501I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11, or to the description of the DSNT501I message in Chapter 18, "DSNT... Messages," on page 417.

If statistics trace class 3 is active, IFCID 172 contains

diagnostic information. For a discussion of the effects of locking, see Part 5 (Volume 2) of *DB2 Administration Guide*. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 18, 32, 36, 38.

00C90089

Explanation: The environmental descriptor manager (EDM) function of the data manager subcomponent did not have enough storage in its pool or data space to support the retrieval of object with ID 'object id' (DBD ID, SKCT plan name or SKPT package name). The object can be either a database descriptor (DBD), a skeleton cursor table (SKCT) or a skeleton package table (SKPT).

This reason code is issued by the following CSECTS:

DSNGEDLC DSNGEDST DSNGEELC DSNGEFSP
DSNGESLC DSNGEPLC

System Action: The requested operation is not performed.

User Response: Invoke the application again. If, after several attempts, there is still not enough space, the following actions can be taken to reduce EDM storage requirements:

- Reduce the number of concurrent users using DB2.
- Try reducing the number of SQL statements in the plan or package and rebind.
- Try to simplify the database design—for example, reduce the number of partitions in the database.

To increase the EDM pool size definition, on the UPDATE install panels:

- If EDM storage shortage is a recurring problem, change the installation parameters that affect the size of the EDM pool—that is, increase the number of concurrent users and the number of currently active databases, then restart DB2.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11, or to the description of the DSNT500I message in Chapter 18, "DSNT... Messages," on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on the identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32.

00C9008A

Explanation: The database procedure installation exit identified by NAME could not be loaded for execution.

This reason code is issued by the following CSECTS: DSNIREDR, DSNIENSR

System Action: The requested operation is not performed.

User Response: Determine the reason the installation exit could not be loaded, correct the problem, and rerun the job.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11, or to the description of the DSNT500I message in Chapter 18, "DSNT... Messages," on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on the identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32.

00C9008B

Explanation: An attempt was made to create a database, but no DBIDs are available; that is, the system limit has been reached.

This reason code is issued by the following CSECT: DSNNGDCID

System Action: The create is not allowed.

User Response: DROP all unused databases, and rerun the job.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11, or to the description of the DSNT500I message in Chapter 18, "DSNT... Messages," on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2*

Diagnosis Guide and Reference for information on the identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32.

00C9008C

Explanation: An attempt was made to allocate or bind to a partitioned table space for which no partitioning key was defined.

System Action: The bind or allocation process is not allowed.

User Response: Define the partitioning key or partitioning index for the partitioned table space, and rerun the job.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT501I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11, or to the description of the DSNT501I message in Chapter 18, "DSNT... Messages," on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 15, 17, 32, 33, 35.

00C9008D

Explanation: An attempt was made to bind to a table space that had an incomplete clustering definition.

This reason code is issued by the following CSECTS: DSNISPSC, DSNIPSEFI

System Action: The bind process is not allowed.

User Response: Complete the clustering definition for the table space, and rerun the job.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT501I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11, or to the description of the DSNT501I message in Chapter 18, "DSNT... Messages," on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2*

00C9008E • 00C90090

Diagnosis Guide and Reference for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 15, 17, 32, 33, 35.

00C9008E

Explanation: A lock request for the resource identified by NAME could not be granted, and the request waited for a period longer than the maximum specified by the installation.

This reason code is issued by the following CSECT: DSNILMCL

System Action: The data manager function that detected this condition returns 'resource not available' to its invoker.

Message DSNT378I might also be issued.

Problem Determination: The requested operation is not performed. An SQLCODE -904, -911, -913, or -923 is issued, and/or message DSNT501I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11, or to the description of the DSNT501I message in Chapter 18, "DSNT... Messages," on page 417. If a time-out occurs, see also the "System Programmer Response" in message DSNT376I for problem determination.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 18, 32, 36, 38.

00C9008F

Explanation: The database descriptor's size (DBD) has reached the limit of 25% of the EDM Pool size.

This reason code is issued by the following CSECT: DSNNGDCPD

System Action: The request to create/alter a database object is not allowed.

User Response: Create the database object in a different database or drop unused database objects from the database. If you drop an object that is an index or a table space, the space becomes available in the DBD as soon as the drop is committed. If you drop an object that is a table, the space in the DBD is made available only after all of the following:

- The DROP is committed.

- The DB2 REORG is run on the table space and there is no point in time recover after the REORG.
- MODIFY is run to delete all image copies of data that contains rows of the dropped table, that is, copies that were taken before the REORG. Note that MODIFY will reclaim space in the DBD only if there are SYSCOPY rows to delete.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11, or to the description of the DSNT500I message in Chapter 18, "DSNT... Messages," on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32.

00C90090

Explanation: An attempt to lock a required resource failed.

System Action: The operation is not performed.

User Response: Wait for all jobs which hold a lock on the resource in an incompatible lock state to complete before reissuing the failing statement.

Problem Determination: The requested operation is not performed.

If the resource type is table space, table, or index, then issue the -DISPLAY DATABASE command with the LOCKS option to get a list of jobs which currently hold locks on the required resource.

If the resource type is a package, then wait for BIND activity on that package to complete before reissuing the failing request.

If the problem persists after jobs which hold incompatible locks complete, gather diagnostic information to pursue the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32, 33.

00C90091

Explanation: The table space or index space could not be started, because there is an outstanding indoubt UR that must be resolved before the start is allowed.

This reason code is issued by the following CSECT: DSNILSTS

System Action: The START operation is not performed.

Problem Determination: Message DSNI002I is issued. See the description of that message for additional information.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32, 33.

00C90092

Explanation: DB2 received an out-of-storage indication from IRLM resulting from a lock, unlock, or lock change request.

This reason code is issued by the following CSECT: DSNILMCL

System Action: A record is written to SYS1.LOGREC only when an abend is issued. No dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: IRLM has exhausted the amount of virtual storage available to it to represent locks. Insufficient virtual storage remains to satisfy this request. Refer to Part 5 (Volume 2) of *DB2 Administration Guide* for the IRLM procedure to determine the amount of storage space available.

The current mix of transactions caused all available storage to be used. You can find the number of locks held by a particular transaction by either using the DB2 performance trace facility or by performing IRLM tracing. Refer to Part 5 (Volume 2) of *DB2 Administration Guide* for information about the DB2 performance trace facility.

Determine what transactions were running and the number of locks they held. You might want to schedule some of these transactions at a different time.

You can reduce the total number of page or row locks that applications concurrently hold by changing the locking protocol on one or more table spaces. Use one of the following:

- ALTER TABLESPACE...LOCKSIZE ANY
- ALTER TABLESPACE...LOCKSIZE TABLESPACE

- LOCK TABLE statements

If application logic permits, reduce the number of page or row locks concurrently held for SELECT statements by re-binding application plans with isolation level of cursor stability instead of repeatable read or read stability. Refer to Chapter 4 of *DB2 SQL Reference* for further information on SELECT.

You can reduce the total number of LOB locks that applications concurrently hold by changing the locking protocol on one or more LOB table space. Use one of the following:

- ALTER TABLESPACE...LOCKSIZE TABLESPACE
- LOCK TABLE statement

Problem Determination: One or more of the following might be issued:

- An SQLCODE -904 or -923
- Message DSNT501I
- An abend

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 18, 32, 35, 36.

00C90093

Explanation: An error occurred in IRLM.

This reason code is issued by the following CSECT: DSNILMCL

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Examine SYS1.LOGREC for a preceding error related to IRLM.

Problem Determination: One or more of the following might be issued:

- An SQLCODE -904 or -923
- Message DSNT501I
- An abend

SYS1.LOGREC contains the same diagnostic information in the variable recording area (VRA) as shown for abend reason code '00C90101'. The first four bytes of CTSIWHY contain the return code from the IRLM function. The fifth byte of CTSIWHY contains the request code, as follows:

X'02'	Lock
X'03'	Unlock

X'04' Change

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 18, 32, 35, 36.

00C90094

Explanation: A data set is in a state that is different from what DB2 expects. Possible causes are:

- A data set was deleted and redefined without DB2's knowledge.
- A previous DB2 failure involving the data set might have occurred.

This reason code is issued by the following CSECT: DSNIBMCL

System Action: The requested action is not performed. If the invoker of this module (DSNIBMCL) abends, a record is written to SYS1.LOGREC, and the invoker probably initiates a dump. If the invoker does not abend, no record is written to SYS1.LOGREC, and no dump is requested. If this occurs, an SQL return code is issued, and/or message DSNT500I is issued. If the invoker of DSNIBMCL is not a utility, the data set is placed in a stopped status.

User Response: If the code was received while processing a user table, DB2 determined that the data set is empty. A DROP TABLESPACE statement followed by a CREATE TABLESPACE statement and a CREATE TABLE statement defines the dropped table to DB2. Use the IDCAMS LISTCAT for the failing DB2 dataset. Check the HI-USED-RBA for this dataset; if HI-USED-RBA = 0, the dataset is empty. If it was received while processing a DB2 catalog or directory, then recover the object as specified in *DB2 Administration Guide* in the section "Recovering Catalog and Directory Objects".

Operator Response: Notify the system programmer.

System Programmer Response: If you do not have the current level of the data set, you must perform DB2 recovery to return the data set to its expected state. See the Problem Determination section of this message for procedures to determine the name of the data set to be corrected. Use the DISPLAY command to check the status of the data set. If the data set is stopped, use the START command before performing recovery.

Problem Determination: For more information, refer to the SQL return code in Part 2, "SQL return codes," on

page 11, or to the description of the DSNT500I message in Chapter 18, "DSNT... Messages," on page 417.

This error is detected at a time when the specific name of the data set involved cannot be determined by DB2. However, the SQL return code or message DSNT500I provides the name of the table space or index space in which the data set resides. When the table or index space consists of a single data set, this is specific. Otherwise, the system programmer must find the particular data set within the table or index space.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 10, 32, 33, 35.

00C90095

Explanation: An attempt was made during DB2 restart to access a page in order to apply a log record but DB2 was unable to access the page. This abend reason code appears as the reason code in message DSNIO01I.

This abend reason code is issued by the following CSECTS: DSNIBMOC, DSNIIIMP

System Action: The restart of the named table space, index space, or partition is deferred by the subsystem.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the problem, and then use either the -START DATABASE command or the RECOVER utility to make the table space, index space, or partition available.

Problem Determination: Examine previous messages on the console to determine why DB2 could not access the page. One possible reason is that a back-level pack was mounted. That is, the page to which the log record applies was not yet formatted by VSAM. DB2 does not extend data sets during restart.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 13, 32, 33.

00C90096

Explanation: The page, row or LOB lock on the page or subpage identified by NAME in message DSNT500I or DSNT501I caused the total number of page, row or LOB locks concurrently held to reach the installation maximum number of page, row or LOB locks (NUMLKUS) allowed for a single agent in the system.

This reason code is issued by the following CSECT: DSNILMCL

System Action: The operation that encountered this condition is not executed. If a utility job encountered this condition, the utility is stopped. Otherwise, any database updates for the statement that was executing are backed out. Any database reads for the statement that was executing are not executed. The position of the cursor is unpredictable.

User Response: Rerun the application after correcting the cause of this resource unavailable condition.

Programmer Response: Reduce the total number of page, row or LOB locks that the application concurrently holds by changing the locking protocol on one or more of the table spaces to table space level locking. To do this, use the ALTER ... LOCKSIZE TABLESPACE or LOCK TABLE statements.

Review the application to see if a different choice of SQL statements can be used to perform the same operation with less concurrent access to multiple tables with page, row or LOB locking.

If application logic permits, reduce the number of page, row or LOB locks concurrently held for SELECT statements by rebinding the application plan with isolation level of cursor stability instead of repeatable read or read stability, or add more frequent commits.

System Programmer Response: If the application should be able to run with the current page, row or LOB locking protocol and SQL statements, increase the NUMLKUS value for the installation to allow a higher limit of page, row or LOB locks to be concurrently held by a single application. If a utility job encountered this resource unavailable condition, the NUMLKUS value must be increased to accommodate the utility, because utilities are programmed to use the minimum number of page, row or LOB locks possible. Refer to Part 5 (Volume 2) of *DB2 Administration Guide* for further information about choosing the value for NUMLKUS.

Operator Response: If a utility job encountered this resource unavailable condition, terminate the utility and restart it after the cause of the resource unavailable condition has been corrected.

Problem Determination: An SQLCODE -904 and message DSNT500I or DSNT501I are issued. For more information refer to the SQL return code in Part 2, "SQL return codes," on page 11, or message DSNT500I or DSNT501I in Chapter 18, "DSNT... Messages," on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32.

00C90097

Explanation: An attempt was made to allocate to a table space for update operations. However, the table space was marked as 'image copy' required, and updates are not allowed. This condition occurs as a result of any of the following:

- Running a REORG LOG NO or LOAD LOG NO utility on the table space without running a copy that specifies FULL YES.
- Execution of a RECOVER utility which specifies the TORBA or TOCOPY options, without following it with the required COPY utility.
- Execution of a -TERM UTILITY command on a COPY utility that failed during the copy phase or was active in the copy phase. Until the COPY utility completes, SQL updates are not allowed because the integrity of the data would be compromised.
- Execution of a MODIFY utility after all back up copies of the table space or data set were deleted from the SYSCOPY catalog table.

This reason code is issued by the following CSECTs:

DSNIDBCJ DSNIDBCO DSNIDBCQ

System Action: The allocation process is not allowed.

User Response: Run the COPY utility. However, if the table space is to be used for read-only access, or if recoverability of the data is not required, instead of taking a full image copy you can run the REPAIR utility and request that the image copy required condition be removed.

Problem Determination: The requested operation is not performed. An SQLCODE -904 and/or message DSNT501I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11 or to the description of the DSNT501I message in Chapter 18, "DSNT... Messages," on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on

identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32.

00C90098

Explanation: An attempt was made to increase read-only or write-access counts of the utility in process beyond the maximum (255) allowed.

This abend reason code is issued by the following CSECT: DSNIDBMF.

User Response: Use the -DISPLAY UTILITY command to determine how many utility jobs are currently active. If a number of utility jobs are active but not in the stopped state, notify the system programmer. If the utility jobs are running, resubmit your job after they complete.

System Programmer Response: Determine why active utilities are in the stopped state. Use the -TERM UTILITY command to terminate utilities and reduce the UIP (utility in process) counts. If no active utilities are indicated, then use the -DISPLAY DATABASE command to show which table spaces or partitions are in a UTRW or UTRW state.

Problem Determination: Message DSNT500I is issued. For more information, refer to the explanation of message DSNT500I.

00C90099

Explanation: An attempt was made to load data into a partition, but the partition is full. Based on the High Key value specified in the Index for each partition, utilities instructed Data Manager to load a record into the proper partition. This required Data Manager to build a new page with a page number one higher than the last page in the partition. However, this new page is in the next partition.

This abend reason code is issued by the following CSECT: DSNILPG

System Action: The requested action is not performed.

User Response: Redefine the High Key values in the Index and retry the load.

If you receive this code during a reorganization, query the catalog to check the PCTFREE and FREEPAGE values. You might be able to decrease the amount of free space to allow the REORG utility to complete successfully.

Operator Response: Notify the system programmer.

System Programmer Response: Use the -TERM UTILITY command to terminate the load utility and reduce the UIP (utility in process) counts.

Problem Determination: For more information, refer to the explanation of message DSNT500I in the Service Controller Messages section of this book.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 32, 37.

00C9009A

Explanation: An attempt was made to create a system database which, according to the DBID space map, has already been created. However, the catalog shows the database was not created. This discrepancy between the catalog and the space map for DBIDs may be due to an unsuccessful migration.

This abend reason code is issued by the following CSECT: DSNGDCID

System Action: Database is not created.

Operator Response: Notify the system programmer.

System Programmer Response: Drop the database, then create it (using DROP and CREATE commands). If this fails to resolve the error, follow the steps in problem determination.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," on page 11, or to the description of the DSNT500I message in Chapter 18, "DSNT... Messages," on page 417.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32, 38, 39.

00C9009B

Explanation: An attempt was made to load data into a linear table space, but the table space is full. A linear table space can contain a maximum of 64GB of data.

This abend reason code is issued by the following CSECT: DSNILPG

System Action: The requested action is not performed.

User Response: Use the -TERM UTILITY command to terminate the LOAD utility. Use ALTER TABLE SPACE to reduce the amount of free space within a page (PCTFREE) and the number of free pages within the table space (FREEPAGE). Then retry the load. If it

is a resume load job, reorganize the table space before rerunning the load.

Problem Determination: For more information, refer to the explanation of message DSNT500I in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 32, 37.

00C9009C

Explanation: An attempt was made to insert data into a partitioned table space or index space, but the partition is full. For table space partition, the data to be inserted is based on the high-key value specified in the cluster index. If it is an index space partition, the index entry to be inserted is also based on the high-key value associated with the index.

This abend reason code is issued by the following CSECTs: DSNISMPI, DSNISMPX

System Action: A 'resource not available' code is returned to the end user and the requested action is not performed. The SVC dump and the SYS1.LOGREC recording are not requested.

User Response: Notify the system programmer to redefine the partitions and rerun the job.

System Programmer Response: Refer to Part 2 (Volume 1) of *DB2 Administration Guide* to redefine a partition. The partition that must be redefined is identified in the DSNT501I message.

If you suspect an error in DB2 refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For more information, refer to the explanation of message DSNT501I in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 37.

00C9009D

Explanation: An attempt was made to insert data into a linear table space or index space, but the table space or index space is full. A linear table space or index space can contain a maximum of 64GB of data.

This abend reason code is issued by the following CSECTs:

DSNISGPI DSNISMPI DSNISMPX

System Action: A 'resource not available' code is returned to the end user and the requested action is not performed. The SVC dump and the SYS1.LOGREC recording are not requested.

User Response: Notify the system programmer to reclaim some free space in the associated table space or index space and rerun the job.

System Programmer Response: The table space or index space name is identified in the DSNT501I message. If it is a table space, run the DB2 REORG utility to attempt to reclaim additional free space. If it is an index space, drop and recreate the index with a fewer number of SUBPAGES. If free space cannot be reclaimed, notify the database administrator to redistribute the data into different table spaces or index spaces.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For more information, refer to the explanation of message DSNT501I in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 37.

00C9009E

Explanation: The object depends on new facilities of the release and is therefore unavailable for processing. For data-sharing systems, the object will be available on a new release in a data-sharing group. For non-data-sharing systems, the object will be available after re-migration if release fall back has occurred.

This abend reason code is issued by the following CSECTs: DSNICUBC, DSNIPSF1

System Action: The operation is not allowed. The data manager function that detected this condition returns 'resource not available' to its invoker.

Operator Response: Notify the system programmer.

System Programmer Response: In order to perform the operation on the object:

- For non-data sharing systems a re-migration is required.
- For data sharing systems, insure that the operation is performed on a member at the correct level of DB2.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued. Message DSNT500I or message DSNT501I may also be issued. For more information, refer to the Part 2, "SQL return codes," on page 11 or to the description of the DSNT500I and DSNT501I messages in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00C9009F

Explanation: A table has been referenced that has a primary key or unique key but no index exists to enforce its uniqueness. The reference is usually to a parent table when attempting to verify the referential constraint of an insert or update operation to a dependent table.

This abend reason code is issued by the following CSECTS:

DSNIALLC DSNICUBC DSNIKESR DSNIRELI

System Action: The use of the table is not allowed.

User Response: Create a unique index on the referenced table to enforce the primary key or unique key.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued. For more information, refer to Part 2, "SQL return codes," on page 11, or to the description of the DSNT501I message in Chapter 18, "DSNT... Messages," on page 417.

00C900A0

Explanation: An attempt was made to allocate or access a table space or index that is in the rebuild pending status (PSRBD) or an index in pageset rebuild pending status (PSRBD).

System Action: The use of the object is not allowed.

User Response: Determine when the resource is available for use and rerun the job.

Operator Response: Determine whether the RECOVER utility should be run to complete recovering the object.

Problem Determination: The requested operation is not performed because the table space or index might be in an inconsistent state. An SQLCODE -904 and/or message DSNT501I and/or message DSN1005I is issued. For more information, refer to Part 2, "SQL return codes," on page 11, or to the description of the DSNT501I message in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00C900A1

Explanation: An attempt was made to allocate a table space or index that is in group recovery pending state.

System Action: The use of the object is not allowed.

User Response: Run the RECOVER utility, LOAD utility or START DATABASE command to recover the object.

Operator Response: Determine whether the RECOVER utility or START DATABASE command should be run to complete recovery of the object.

Problem Determination: The requested operation is not performed because the table space or index might be in an inconsistent state. An SQLCODE -904 and/or message DSNT501I is issued. For more information, refer to Part 2, "SQL return codes," on page 11, or to the description of the DSNT501I message in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00C900A3

Explanation: An attempt was made to allocate a table space, index space, or a related index space while the table space or index space was in check pending status.

This abend reason code is issued by the following CSECTS:

DSNIDBCI DSNIDBCJ DSNIDBCN DSNIDBCO
DSNIDBCP DSNIDBCQ DSNIDBET DSNIRCCA

System Action: The operation is not allowed.

Operator Response: Notify the system programmer.

System Programmer Response: The check pending status needs to be resolved before the operation will be allowed.

If the object is a table space with referential relationships, then run the CHECK DATA utility to check for referential integrity violations.

If the object is a base table space with LOB columns, then run the CHECK DATA utility to validate the auxiliary columns.

If the object is a LOB table space, then run the CHECK LOB utility to validate the structure of the LOB table space.

If the object is an index space, then run the CHECK INDEX utility to verify that the index keys are consistent with the data in the table space or table space partition.

For more information, see Part 2 (Volume 1) of *DB2 Administration Guide*.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or -923 is issued. For more information, refer to Part 2, "SQL return codes," on page 11, or to the description of the DSNT501I message in Chapter 18, "DSNT... Messages," on page 417.

00C900A4

Explanation: An attempt was made to allocate a segment for a table in a segmented table space, but there are no free segments. A segmented table space can contain a maximum of 64GB of data. A segment will be allocated under one of the following conditions:

- When a table is ready to be created in a segmented table space with the CREATE TABLE statement.
- When a record is inserted/loaded into a segmented table and free space is not available from existing segments.

This abend reason code is issued by the following CSECTs: DSNISEGF, DSNISGNS

System Action: A 'resource not available' code is returned to the end user and the requested action is not performed.

User Response: Notify the system programmer to reclaim some free space in the associated segmented table space and rerun the job.

System Programmer Response: An SQLCODE -904 is issued, and/or message DSNT501I is issued. The segmented table space name is identified in SQLCA and/or in the DSNT501I message. If the requested function is the CREATE TABLE statement, create the table in a different segmented table space. Otherwise, run the DB2 REORG utility to attempt to reclaim additional free space. If no free space can be reclaimed, then notify the database administrator to redistribute the data into different table spaces.

Problem Determination: For more information, refer to the explanation of message DSNT501I in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 37.

00C900A5

Explanation: The temporary file(s) is full or the maximum number of extensions for a VSAM data set(s) has been exceeded for all temporary files or the volume(s) has no space available in which to extend.

This reason code is issued by the following CSECT: DSNIXWKF

System Action: The reason code appears in a DSNT501I message, and the requested operation is not performed.

User Response: If the reason code appears in a DSNT501I message, issue -DISPLAY THREAD to determine the total number of concurrent users. If there were a large number of users using temporary file(s), resubmit the job when concurrent users are low. IDCAMS LISTCAT may be used to determine the VSAM data set(s) space allocations.

- If there was no space available on a volume(s), then clear space from the volume(s) or add more volumes to the STOGROUP or redefine the VSAM data set to concatenate more volumes.
- If the maximum number of extensions has been exceeded for the VSAM data set(s), then ALTER or delete and redefine the temporary data set(s) with a larger size.
- If all the temporary files are full, then create or define more temporary files.

Issue the -START DATABASE command to start the temporary file.

Problem Determination: The requested operation is not performed. An SQLCODE -904 or message DSNT501I is issued, and/or message DSNT501I is issued. For more information, refer to SQLCODE -904 in SQL Return Codes, Part 2, "SQL return codes," on page 11, or to the description of the DSNT501I message in Part 3, "DB2 messages," on page 157.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 32, 10, and definitions of temporary file(s) involved in the error.

00C900A6

Explanation: Access to the catalog was requested but denied because the catalog was not migrated to the current release level. The object in the catalog is available after the catalog is migrated.

This abend reason code is issued by the following CSECT: DSNICUBC

System Action: The operation is not allowed. The data manager function that detected this condition returns 'resource not available' to its invoker.

Operator Response: Notify the system programmer.

System Programmer Response: To perform the operation on the object, you must migrate the catalog to the current release. To do this, run DSNTIJTC. Refer to Part 2 of *DB2 Installation Guide* for information about this job.

Problem Determination: The requested operation is not performed. SQLCODE -904 and message DSNT501I are issued. For more information refer to the SQL Return Code section or to the description of the DSNT501I message in Chapter 18, "DSNT... Messages," on page 417.

00C900A7

Explanation: At allocation of a bound plan or a bound package, a lock inconsistency is detected. A DB2 internal bind error is probably responsible for this condition. The plan or the package cannot be allocated.

00C900A8 • 00C900AB

This reason code is issued by the following CSECT:
DSNIALLC

System Action: The plan or the package is not allocated. A DSNT5011 message is issued and an SQLCODE -923 is returned to the application.

System Programmer Response: Re-bind the plan or the package.

Problem Determination: If the problem persists after the plan or the package is rebound, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32, 33.

00C900A8

Explanation: The table space, index, or partition could not be started because of a failure to acquire the lock. Activity on the table space, index, or partition must quiesce before the START DB ACCESS(FORCE) command can acquire the necessary lock.

The abend reason code is issued by the following CSECT: DSNISTFO

System Action: The START operation is not performed.

User Response: Wait for all activity on the table space, index, or partition to complete before reissuing the START command.

Problem Determination: The requested operation is not performed. Message DSNI002I is issued. For more information, refer to the description of this message in Chapter 10, "DSNI... Messages," on page 285. If the problem persists after all activity on the table space, index, or partition completes, gather diagnostic information to pursue the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32, 33

00C900A9

Explanation: An attempt was made to allocate a resource that is deferred.

The abend reason code is issued by the following CSECT: DSNIDBCN

System Action: The allocation process is not allowed.

User Response: Determine the reason for which the resource was deferred and take the appropriate action to correct the problem. Such actions include issuing the

START DATABASE command or running the RECOVER TABLESPACE, RECOVER INDEX, RECOVER, or LOAD REPLACE utility.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued, and/or message DSNT500I or DSNT501I is issued. For more information, refer to the SQL return code or to the description of the DSNT500I or DSNT501I message. SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32, 33

00C900AA

Explanation: The table space or index space could not be stopped because it is indoubt.

The abend reason code is issued by the following CSECTS: DSNILSTS DSNIPDBA

System Action: The STOP operation is not performed.

User Response: Resolve the indoubt unit of recovery (UR) using the RECOVER INDOUBT command.

Problem Determination: Message DSNI003I is issued. For more information, refer to the description of this message. If the problem persists after all indoubts with locks on the table space/index space are resolved, gather diagnostic information to pursue the problem.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32,

00C900AB

Explanation: An attempt was made to access a resource that is in the restart pending state.

System Action: The use of the resource is not allowed.

System Programmer Response: Use the DISPLAY THREAD TYPE(POSTPONED) to determine the status of the resource.

Use the RECOVER POSTPONED command if recover has not already been started.

Problem Determination: The requested operation is not performed because the table space might be in an inconsistent state. An SQLCODE -904 is issued. For more information, refer to the "Section 2. SQL Return Codes" in topic A.2 or to the description of the DSNT5011 messages in "Section 3. DSNT Messages" in topic A.3.

00C900AC

Explanation: The DB2 subsystem currently serves as a remote site tracker system. Users cannot have write access for tracker systems, and a tracker DB2 will not allow the use of any SQL statement that requires write access.

System Action: DB2 cannot process the operation.

System Programmer Response: None.

Problem Determination: A tracker DB2 does not allow the use of any SQL statement that requires write access, such as DDL, GRANT/REVOKE, INSERT, DELETE, or UPDATE. DB2 issues SQL code -904 in conjunction with this message. You can also find more information in the description for message DSNT5011, which DB2 issues along with this reason code.

Additionally, a tracker DB2 does not allow the START DATABASE command to perform LPL/GRECP recovery. If you attempt a START DATABASE command on a tracker DB2, DB2 will issue message DNSI0051 with this reason code.

00C900AD

Explanation: An attempt was made to access a resource that is in the REORG pending state.

This reason code is issued by the following CSECT:

System Action: The use of the resource is not allowed.

System Programmer Response: Use the REORG utility with SHRLEVEL(NONE) PART n1:n2 to resolve the REORG pending state. The following methods may be used to resolve the REORD pending state:

- REORG SHRLEVEL(NONE) PART (m:n)
- LOAD REPLACE tablespace
- DROP tablespace

Problem Determination: The requested operation is not performed because the table space might be in an inconsistent state. A SQLCODE -904 is issued.

00C900AE

Explanation: An attempt was made to allocate or access an index that is in the rebuild pending status.

This abend reason code is issued by the following CSECTS:

DSNIDBCJ DSNIDBCO DSNIDBCQ

System Action: The use of the object is not allowed.

User Response: Determine when the resource is available for use and rerun the job.

Operator Response: Determine whether the REBUILD utility should be run to complete recovering the object.

Problem Determination: The requested operation is not performed because the index may be in an inconsistent state. An SQLCODE -904 and/or message DSNT5011 and/or message DSNI0051 is issued. For more information, refer to Part 2, "SQL return codes," on page 11, or to the description of the DSNT5011 message in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00C900BA

Explanation: A request for a drain lock for the resource identified by NAME in messages DSNT5001 and DSNT5011 could not be granted. The request waited for a period longer than the maximum specified by the installation.

This reason code is issued by the following CSECT: DSNILMCL

System Action: The requested action is not performed. The Data Manager function that detected this condition returns 'resource not available' to its caller.

User Response: Wait for all jobs that hold a drain lock on the resource in an incompatible state to complete before reissuing the failing statement. To display drain locks, issue a DISPLAY DB LOCKS command. In order to avoid a potential deadlock, the application should either commit or roll back to the previous COMMIT.

System Programmer Response: See SQLCODE -913 or -911 and/or message DSNT5011, which accompany this abend reason code.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32, 35.

00C900BC

Explanation: The statement depleted the record identifier (RID) storage available.

This abend reason code is issued by the following CSECT: DSNIREFS

System Action: The requested action is not performed.

Operator Response: Notify the system programmer.

System Programmer Response: Restructure the SQL statement so that fewer RIDs are needed. The best way to do this is to split the statement into two or more SQL statements equivalent to the original statement. Also, in some cases, increasing the virtual storage might eliminate the times when storage is depleted.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SQL return code -904 and/or message DSNT500I is issued. For more information, refer to the explanation of message DSNT500I.

00C900BE

Explanation: DB2 is unable to acquire a lock on a resource because another DB2 subsystem in the DB2 data sharing group holds an incompatible retained lock on that resource. Retained locks are locks that persist across DB2 abnormal terminations.

System Action: The requested action is not performed. SQLCODE -904 is issued. A 'resource not available' code is returned to the user. This reason code and the resource name are returned in the cursor table (CT) and made available to the user in the SQLCA.

Problem Determination: SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK13, VRARRK14, and VRARRK15.

This reason code is issued by the following CSECT: DSNILMCL

00C900BF

Explanation: DB2 is unable to obtain a lock because IRLM detected an 'out of record list' storage condition. The record list is that part of the coupling facility lock structure that contains the 'modify locks' (those locks that would be retained in case of a failure).

This reason code is issued by the following CSECT: DSNILMCL

System Action: SQLCODE -904 is returned to the user with this reason code. This reason code and the resource name are returned in the cursor table (CT) and

made available to the user in the SQLCA. If it is active, an IFCID 0021 trace record is written and might contain additional diagnostic information.

System Programmer Response: If this becomes a prevalent problem, you will need to redistribute the coupling facility lock structure storage resource to make more room for the record list. You can do this in one of two ways:

- issue a rebuild, or
- dynamically change the lock structure size

See Chapter 6 of *DB2 Data Sharing: Planning and Administration* for more details about these options.

00C900C0

Explanation: A request for an internal lock could not be granted. The request waited for a longer period than is allowed.

This reason code is issued by the following CSECT: DSNILMCL

System Action: The request action is not performed. A 'resource not available' reason code is returned to the caller.

User Response: If the user is a DB2 utility, rerun or restart the utility. If it is a DB2 command, reissue the command. DB2 applications should either commit or roll back to the previous commit, then retry from the commit point.

System Programmer Response: See SQLCODE -911 or -913 and/or message DSNT500I, which accompany this reason code. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00C900C1

Explanation: An attempt was made to allocate an index that has one or more logical partitions in a rebuild pending state.

System Action: Use of the object is not allowed.

User Response: Determine when the resource is available for use and rerun the job.

Operator Response: Determine when the REBUILD utility should be run to complete recovering the object. Only the logical partitions marked as rebuild pending need to be recovered.

Problem Determination: The requested operation is not performed because the index might be in an inconsistent state. An SQLCODE -904 or message DSNT501I is issued. For more information, refer to the SQL return code in Part 2, "SQL return codes," or to the description of the DSNT501I.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on

identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 32, 72.

00C900C4

Explanation: An attempt was made to insert values into a table that has a ROWID column with the *generated by default* attribute but no index exists to enforce its uniqueness.

System Action: The use of the table is not allowed.

System Programmer Response: Create a unique single column index for the ROWID column.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued. For more information, refer to the Part 2, "SQL return codes," on page 11 or to the description of the DSNT5011 messages in Chapter 18, "DSNT... Messages," on page 417.

00C900C5

Explanation: An attempt was made to access a table space that is in the auxiliary check pending state (ACHKP).

System Action: The operation is not allowed. DB2 returns 'resource not available' to its invoker.

System Programmer Response: Use the CHECK DATA utility to identify the invalid LOBs. Use the SQL UPDATE statement to replace the invalid LOBs or the SQL DELETE statement to remove the rows with the invalid LOBs. After rectifying all invalid LOBs, run CHECK DATA again to clear the ACHKP state from the table space.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

An SQLCODE -904 is issued. Message DSNT500I or message DSNT501I may also be issued. For more information, refer to the Part 2, "SQL return codes," on page 11 or to the description of the DSNT500I and DSNT501I messages in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00C900C6

Explanation: DB2 detected an uncommitted write on an index being altered to change the type during the same commit scope. This is not allowed. Commit or rollback all changes to an index before alter index convert type is used to change the index type.

System Action: The alter index convert type of the index is not allowed.

System Programmer Response: The requested operation is not performed and SQLCODE -904 is issued. For more information, refer to the SQL code in "Section 2. SQL Return Codes". Commit or rollback changes to the index and retry the Alter Index convert type.

Problem Determination: The requested operation is not performed and SQLCODE -904 is issued. For more information, refer to the SQL return code in "Section 2. SQL Return Codes."

00C900C7

Explanation: The requested function was either:

- not supported by the current release or maintenance level of DB2, or
- deactivated by a modified the system parameters.

In the former case, the NAME field of the accompanying message indicates the required level of maintenance. In the latter case, the NAME field indicates the deactivating system parameter.

System Action: The requested action is not performed.

User Response: Inform the system administrator.

System Programmer Response: To permit the use of the function, take the appropriate actions according to the situation. Apply the indicated maintenance, migrate to the indicated release of DB2, or use an alternate setting for the indicated system parameter.

00C900C8

Explanation: Access to the index is disallowed within the same commit scope as an ALTER TABLE statement that alters the key column in the index. If the ALTER TABLE statement failed, then commit the changes to the index and retry the ALTER TABLE statement. If an INSERT, DELETE, UPDATE, or SELECT statement failed, then commit the ALTER and retry the statement.

System Action: The operation is not allowed.

User Response: Commit and then retry the operation.

00C900C9

Explanation: After being expanded to process triggers, a row has grown too large to fit into a 32K page of a workfile.

System Action: DB2 does not perform the requested operation.

Programmer Response: Drop and recreate triggers to use less LOB columns as transition variables, or eliminate the use of the ROWID column as a transition variable. For a table with LOB columns or a ROWID

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column whose row size is very close to 32K, it may not be possible to use transition tables with triggers.

Problem Determination: DB2 does not perform the requested operation. DB2 issues SQL code -904, and may also issue message DSNT500I or DSNT501I. For more information, refer to Part 2, "SQL return codes," on page 11, or to the description of the DSNT500I and DSNT501I messages in Chapter 18, "DSNT... Messages," on page 417.

Collect the following terms listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 37.

00C900CB

Explanation: Resource is unavailable because the resource is in a refresh pending state.

System Action: The use of the resource is not allowed.

Problem Determination: DB2 does not perform the requested operation because the table space or index space might be in an inconsistent state. DB2 issues SQL code -904. For more information, refer to the SQL return code, or to the description of the DSNT501I message.

00C900CC

Explanation: DB2 does not accept the NOBACKOUT request during the rollback of a non-global transaction while the backout of catalog changes is in progress.

System Action: DB2 rejects the NOBACKOUT request.

Problem Determination: DB2 does not perform the requested operation because the backout in progress must be complete before the NOBACKOUT request can succeed. Wait for the backout to complete, then reissue the request.

00C900CD

Explanation: DB2 does not accept the NOBACKOUT request during the rollback of a non-global transaction. At least one of the objects of the transaction is shared by another transaction.

This reason code is issued by the following CSECT: DSNILABR

System Action: DB2 rejects the NOBACKOUT request.

Problem Determination: DB2 does not perform the requested operation because at least one object involved in the operation is also updated by other active transactions in DB2. Wait for the other transactions to finish, then reissue the request.

00C900CE

Explanation: Resource is unavailable because the resource is in a state that is incompatible with this version of DB2.

System Action: DB2 does not allow the use of the resource.

Problem Determination: DB2 does not perform the requested operation because the table space or index space might be in an inconsistent state. DB2 issues SQL code -904. For more information, refer to the SQL return code or to the description of the DSNT501I message.

00C900CF

Explanation: DB2 was unable to open the specified object because it is one of the following types:

1. A Type 1 index
2. An index with a data set password
3. A table space with a data set password
4. An ROSHARE database

The reason code and object name are in the SQL communication area or in related messages.

System Action: Use of the object is not allowed.

User Response: Use the ALTER INDEX, ALTER TABLESPACE, or ALTER DATABASE command to put the object into a supported state. DROP can also be used if the object is no longer needed.

Problem Determination: The requested operation is not performed. A resource unavailable code is returned to the user.

00C900D0

Explanation: An attempt was made to access a value in a column with one of the LOB data types (BLOB, CLOB, DBCLOB), but the value of the column is no longer valid.

System Action: The operation is not allowed. DB2 returns 'resource not available' to its invoker.

System Programmer Response: Use the CHECK LOB utility to identify the invalid LOBs. Use update to replace or delete the invalid LOBs.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued. Message DSNT500I or message DSNT501I may also be issued. For more information, refer to the Part 2, "SQL return codes," on page 11 or to the description of the DSNT500I and DSNT501I messages in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00C900D1

Explanation: The amount of space allowed for processing LOB values by a user has been exceeded. The amount of space allowed per user is indicated by panel DSNTIP7.

This reason code is issued by the following CSECTs: DSNOTCSO

System Action: The operation is not allowed. DB2 returns 'resource not available' to its invoker.

System Programmer Response:

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued. Message DSNT500I or message DSNT501I may also be issued. For more information, refer to the Part 2, "SQL return codes," on page 11 or to the description of the DSNT500I and DSNT501I messages in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00C900D2

Explanation: The amount of space allowed for processing LOB locators for a system has been exceeded. The amount of space allowed for a system is indicated by panel DSNTIP7.

This reason code is issued by the following CSECTs: DSNOTCSO

System Action: The operation is not allowed. DB2 returns 'resource not available' to its invoker.

System Programmer Response:

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued. Message DSNT500I or message DSNT501I may also be issued. For more information, refer to the Part 2, "SQL return codes," on page 11 or to the description of the DSNT500I and DSNT501I messages in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00C900D3

Explanation: No more space in the data space is available for processing LOB values.

This reason code is issued by the following CSECTs: DSNOTCSO

System Action: The operation is not allowed. DB2 returns 'resource not available' to its invoker.

System Programmer Response:

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued. Message DSNT500I or message DSNT501I may also be issued. For more information, refer to the Part 2, "SQL return codes," on page 11 or to the description of the DSNT500I and DSNT501I messages in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00C90101

Explanation: The data manager detected an internal error within DB2. This error may indicate inconsistent data or an error in internal DB2 control structures or code.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

Possible causes of this error include:

- Improper migration or fall back procedures,
- DB2 directory and DB2 Catalog restored to different points in time,
- Table space restored improperly,
- An internal DB2 failure.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If this abend occurred while

00C90102 • 00C90105

processing data in one or more pages, message DSNIO14I is issued to identify each page involved. In general, the data in these pages is fine. However, if problems are reported that repeatedly involve the same pages or if the same pages are reported by other abends, you may want to analyze the set of pages specified.

Run the CHECK utility to determine the extent of index inconsistency if:

- The page type indicated in message DSNIO14I is index.
- The page type indicated in message DSNIO14I is data.
- There is an index defined on a table in the indicated page set.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to Table 4 in Appendix B, "Problem determination," on page 1353 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33, 40, 41.

If the abend reason code was issued by a CSECT with name DSNNGxxxx, where 'xxxx' is any value, make a copy of DSNDB01.DBD01, DSNDB01.SCT02, and DSNDB01.DSNSCT02 on tape with DSN1COPY. This might be a large copy.

00C90102

Explanation: An inconsistent page was detected. This has been caused by a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNIBROK

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields

for this code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

In addition, the following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
2	Address of the page set block (PB)
3	Address of the log record, if any
8	Address of the buffer block (BB)
9	Address of the page buffer

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 6, 13, 32.

00C90103

Explanation: Bad data was returned from either the edit or the validation exit.

This abend reason code is issued by the following CSECTS: DSNIREDR, DSNIENSR

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SYS1.LOGREC contains the same diagnostic information in the variable recording area (VRA) as in abend reason code '00C90101'. Refer to the table accompanying that abend reason code for details.

The '00C90103' abend reason code was issued because one of the checks described in the following list failed:

- Save first and last byte of the input record. On return from exit, see if either group has been modified. If so, abend.
- Check length of edited data. If greater than maximum allowed for this row, or less than one, abend.
- Store a special character in the first byte past the end of the output area (place for edit procedure to put edited or (original unedited) row), to make sure the exit doesn't overrun this area. On return, check if it is still the same special character. If not, abend.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

00C90105

Explanation: An inconsistent page was detected. This has been caused by a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNIBROK

System Action: A record is written to SYS1.LOGREC, an SVC dump is requested, and the page will be scheduled for automatic recovery. If automatic recovery is successful, message DSNB215I is issued. If automatic recovery fails, message DSN1012I is issued, and an abend '04E' with reason code 00C90102 will occur.

Note: If the resource required for automatic recovery is in use, automatic recovery will be delayed until the resource is available.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9. Exceptions to the table definitions of the VRA fields are:

- VRARRK5 is the name of the module that called the check page routine that detected the error in the page.
- VRARRK6 identifies the error in the page.

The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
2	Address of the page set block (PB)
3	Address of the log record, if any
8	Address of the buffer block (BB)
9	Address of the page buffer

Refer also to Table 4 in Appendix B, "Problem determination," on page 1353 for further information on DSN1COPY misuse.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 6, 13, 32.

00C90106

Explanation: The entry is not found for a table space that is being set for deferred restart. An error in DB2 logic is probably responsible for this condition.

This abend reason code is issued by the following CSECT: DSNIIIMP

System Action: A record is written to SYS1.LOGREC, an SVC dump is requested, and the DB2 restart is terminated.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 32, 33.

00C90107

Explanation: At commit phase 1, a nonzero write intent count was detected. An error in DB2 logic is probably responsible for this condition.

This abend reason code is issued by the following CSECT: DSNICMT2

System Action: A record is written to SYS1.LOGREC, an SVC dump is requested. The thread is aborted.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33.

00C90108

Explanation: At commit phase 2, a nonzero read intent count or write intent count was detected. An error in DB2 logic is probably responsible for this condition.

This abend reason code is issued by the following CSECT: DSNICMT2

System Action: A record is written to SYS1.LOGREC, and a SVC dump is requested. The thread is committed and the application is allowed to continue without notification of the error.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33.

00C90109

Explanation: At deallocate, a nonzero read intent count or write intent count was detected. An error in DB2 logic is probably responsible for this condition.

This abend reason code is issued by the following CSECT: DSNIDALC

System Action: A record is written to SYS1.LOGREC, and a SVC dump is requested. The thread is deallocated normally.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33.

00C90110

Explanation: The data manager detected an inconsistent data condition. This may be caused by an inconsistency in either the DB2 catalog or the DB2 directory. In this case, the OBD for the requested OBID cannot be located in the database descriptor (DBD). The DBD in storage may be inconsistent. Specifically, the OBDDMAP(OBID) array element should contain an offset into the DBD where the OBD should be located. However, in this case the OBD expected was not at the indicated offset.

To prevent further damage and possible loss of data, the inconsistency must be corrected before any further SQL access is attempted to this database.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which databases were being used when the error occurred. Prevent further SQL access to the databases. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The DBD in use at the time of the abend is inconsistent in storage and may be inconsistent on DASD. Since the nature and extent of the damage done to the DBD is not immediately known, an analysis of the entire DBD must be done.

The inconsistency may be due to:

- Incomplete recovery of DB2 catalog and/or DB2 directory.
- Invalid restore of DB2 catalog and/or DB2 directory to a prior point in time.
- A conditional restart which bypassed recovery of either the DSNDB01.DBD01 page set or the DSNDB06.SYSDBASE page set.
- A DB2 internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 69, 70, 71, 72.

00C90111

Explanation: The data manager detected an inconsistent data condition. In this case, the OBD for the requested OBID does not exist. This may be caused by an inconsistency in either the DB2 catalog or the DB2 directory. Specifically, the OBDDMAP(OBID) entry is zero rather than an offset to an OBD within the DBD.

To prevent further damage and possible loss of data, the inconsistency must be corrected before any further

SQL access is attempted to this database.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which databases were being used when the error occurred. Prevent further SQL access to the databases. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Since the DB2 directory does not agree with the DB2 catalog, either of these may be inconsistent. Since the nature and extent of the inconsistency between the DB2 catalog the DBD is not immediately known, an analysis of the entire DBD must be done.

The inconsistency may be due to:

- Incomplete recovery of DB2 catalog and/or DB2 directory.
- Invalid restore of DB2 catalog and/or DB2 directory to a prior point in time.
- A conditional restart which bypassed recovery of DSNDB01.DBD01 or DSNDB06.SYSDBASE page sets.
- A DB2 internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 69, 70, 71, 72.

00C90112

Explanation: The data manager detected an inconsistent data condition. There may be more than one object with the same OBID in the DB2 Catalog. To prevent further damage and possible loss of data, the inconsistency must be corrected before any further SQL access is attempted to this database.

This abend reason code is issued by the following CSECT: DSNNGDCOB

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which databases were being used when the error occurred. Prevent further SQL access to the databases. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Since the extent of this inconsistency is not immediately known, an analysis of the entire DBD must be done.

The inconsistency may be due to:

- Incomplete recovery of the DB2 Catalog and/or the DB2 Directory.

- Invalid restore of the DB2 Catalog and/or the DB2 Directory to a prior point in time.
- A conditional restart which bypassed recovery of DSND01.DBD01 or DSND06.SYSDBASE page sets.
- A DB2 internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 69, 70, 71, 72.

00C90124

Explanation: An attempt was made to apply prior-version/release DB2 log records other than checkpoint records.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting problems.

Problem Determination: This abend can occur in migration/remigration when some necessary migration/remigration steps are skipped. It indicates that some DB2 activity occurred or was pending after the last complete checkpoint on the prior system. See Part 2 of *DB2 Installation Guide* for a complete list of migration/remigration steps. If this was the cause of the problem, it can be corrected by falling back to the prior version/release long enough to bring DB2 up, then bring it down while conforming to all migration/remigration steps. Pay specific attention to resolving all indoubts and to performing a stop mode quiesce.

00C90202

Explanation: The data manager detected an inconsistent data condition. In this case, one of the pointers in a link does not point to a valid child or parent row (that is, the link is 'broken'). The pointer, the target row, or the page that contains the pointer or target row is in error.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save the output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSN1013I is issued to identify the data pages. It identifies the database name and table space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33, 42.

00C90203

Explanation: The data manager detected an inconsistent data condition. In this case, one of the pointers in a hash chain does not point to a valid row or anchor (that is, the hash chain is 'broken'). The pointer, the target row/anchor, or the page that contains the pointer or target row/anchor is in error.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

and *Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data pages. It identifies the database name and the table space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33, 42.

00C90205

Explanation: The data manager detected an inconsistent data condition. In this case, a row obtained from an index entry does not point to a valid row in a data page. The error is probably caused by an extra index entry, but it could also result from a table update not being redone when it should have been.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the index page. It identifies the database name, table space name, and index space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were

present at the time of the abend.

Run the CHECK utility to determine the extent of index inconsistency if:

- The page type indicated in message DSNI014I is index
- The page type indicated in message DSNI014I is data
- There is an index defined on a table in the indicated page set.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33, 41, 42.

00C90206

Explanation: The data manager detected an inconsistent data condition. In this case, a row that should be pointed to by an index does not have an index entry. The error is probably caused by a missing index entry, but it could also be caused by a table update that was not backed out when it should have been.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data pages. It identifies the database name, table space name, and index space name. This

message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

Run the CHECK utility to determine the extent of index inconsistency if:

- The page type indicated in message DSN1014I is index
- The page type indicated in message DSN1014I is data
- There is an index defined on a table in the indicated page set.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to Appendix B, "Problem determination," on page 1353 Table 4 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33, 41, 42.

00C90207

Explanation: The data manager detected an inconsistent data condition. In this case, a pointer record does not point to a valid overflow record. The pointer record, the overflow record, or the page that contains the pointer or overflow record is in error.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, for information on identifying and reporting the problem.

Problem Determination: Message DSN1013I is issued to identify the data pages. It also identifies the database name and the table space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33, 42.

00C90210

Explanation: The data manager detected an inconsistent data condition. In this case, the subpage directory of an index leaf page indicates that a given search key doesn't belong to any of the subpages. Either this leaf page is the index tree or the nonleaf portion of the index tree lead to this leaf page as the one that should contain the given key.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSN1013I is issued to identify the index page. It also identifies the database name and index space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to Appendix B, "Problem determination," on page 1353 Table 4 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33, 43.

00C90211

Explanation: The data manager detected an inconsistent data condition. In this case, a row is missing a column that is not nullable and does not allow default values.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data page. It also identifies the database name and table space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33, 42, 62.

00C90212

Explanation: The data manager detected an inconsistent data condition. In this case, there is an empty index leaf page other than the root. (DB2 removes empty pages from the index tree.)

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the index leaf page. It also identifies the database name and index space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

Run the CHECK utility to determine the extent of index inconsistency if:

- The page type indicated in message DSNI014I is index.
- The page type indicated in message DSNI014I is data.
- There is an index defined on a table in the indicated page set.

The LOC keyword in the dump title gives the Load module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to Appendix B, "Problem determination," on page 1353 Table 4 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33, 41, 43.

00C90213

Explanation: The data manager detected an inconsistent data condition. In this case, a row has an unexpected OBID stored in its prefix. A possible cause is that the table space was restored (via DSN1COPY or similar tool) improperly. For example, the wrong data set was copied for the given table space.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA (see the Problem Determination section of this message). 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSN1013I is issued to identify the data page. It also identifies the database name and table space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load module.CSECT: qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to Table 4 in Appendix B, "Problem determination," on page 1353 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33, 42, 62.

00C90214

Explanation: The data manager detected a condition of inconsistent data. The description of the index in the index OBD does not match the attributes of an index page. The problems consists of one of the following conditions:

- IPPNUNI does not equal OBDKNUNI,
- IPPTLTH does not equal OBDKLEN,
- IPPOLTH does not equal OBDLENO, or

- If the page is a leaf page, the segmentation flag or number of subpages conflict (IPPNLPG does not equal OBDINLPG or IPPSEGM conflicts with OBDINLPG).

The index space may have been improperly restored by using DSN1COPY or the wrong data set may have been copied for the given index.

This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in VRARRK5 of the VRA in the SDWA. 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSN1013I will be issued for each index page. It identifies the database, and the index name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to Table 4 in Appendix B, "Problem determination," on page 1353 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33, 42, 44, 62.

00C90215

Explanation: The data manager detected a condition of inconsistent data. The index manager subcomponent has been passed a key with a key length not equal to the key length in pages of the index. The index space may have been improperly restored by using DSN1COPY or the wrong data set may have been copied for the given index.

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This abend reason code is issued by the following CSECT: DSNnnnnn

'nnnnn' is the CSECT name identifier given in VRARRK5 of the VRA in the SDWA. 'DSNnnnnn' is the full CSECT name given in the dump title.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

A rebuild index or recover index will restore the index to a correct condition.

Problem Determination: Message DSNI013I will be issued for each index page. It identifies the database, the index name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

The LOC keyword in the dump title gives the Load-module.CSECT:qualifier of the location where the abend occurred. 'Qualifier' is a unique, 4-digit hexadecimal number that identifies the place within the source module (CSECT) where the abend was issued.

Refer also to Table 4 in Appendix B, "Problem determination," on page 1353 for further information on DSN1COPY misuse.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 31, 32, 33, 42, 44, 62, 63, 64.

00C90216

Explanation: The data manager has detected an inconsistent data condition. Either the length of a record in a table space is longer than the maximum-defined record length as defined in the DB2 directory or a variable-length column has a longer length than the length defined in the DB2 directory.

This abend reason code is issued by the following CSECTs:

DSNIOSET	DSNIRNXT	DSNIRSET	DSNISFWL
DSNISFX	DSNISRID		

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data page that contains the record that is longer than allowed by its corresponding record definition. This could occur if the DB2 directory was recovered to a previous point, allowing new object creations (with a shorter record length) to be created having record identifiers identical to objects previously created in the table space. Also the table space may have been improperly restored by using DSN1COPY or the wrong data set may have been copied for the given table space.

Refer also to Table 4 in Appendix B, "Problem determination," on page 1353 for further information on DSN1COPY misuse.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 32, 33, 42, 62, 65, 66.

00C90218

Explanation: The data manager detected an inconsistent data condition in a segmented table space. In this case, an unallocated segment was found on a segment chain.

This abend reason code is issued by the following CSECT: DSNnnnnn

The CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA is 'nnnnn' (see the Problem Determination section of this message). The full CSECT name given in the dump title is 'DSNnnnnn'.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the space map page that contains the bad segment entry. The database name and table space name will also be identified.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are:

VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Refer also to Table 4 in Appendix B, “Problem determination,” on page 1353 for further information on DSN1COPY misuse.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 3, 32, 37.

00C90219

Explanation: The data manager detected an inconsistent data condition in a segmented table space. In this case, an allocated segment was found on a wrong segment chain (that is, a segment chain contains a segment that belongs to a different table).

This abend reason code is issued by the following CSECT: DSNnnnnn

The CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA is 'nnnnn' (see the Problem Determination section of this message). The full CSECT name given in the dump title is 'DSNnnnnn'.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSN1013I is issued to identify the space map page that contains the bad segment entry. The database name and table space name will also be identified.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Refer also to Table 4 in Appendix B, “Problem determination,” on page 1353 for further information on DSN1COPY misuse.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 3, 32, 37.

00C9021A

Explanation: The data manager detected an inconsistent data condition in a segmented table space. In this case, a data page contains a record which belongs to a table that has not been allocated for the page.

This abend reason code is issued by the following CSECT: DSNnnnnn

The CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA is 'nnnnn' (see the Problem Determination section of this message). The full CSECT name given in the dump title is 'DSNnnnnn'.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSN1013I is issued to identify the data page that contains the bad data record. The database name and table space name will also be identified.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Refer also to Table 4 in Appendix B, “Problem determination,” on page 1353 for further information on DSN1COPY misuse.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 3, 32, 37.

00C9021B

Explanation: The data manager detected an inconsistent data condition in a segmented table space. In this case, the space map page indicates a data page that is not empty exists. However, the data page is either not formatted by the data manager or it is beyond the highest VSAM formatted area.

This abend reason code is issued by the following CSECT: DSNnnnnn

The CSECT name identifier given in the dump header and appearing in VRARRK5 of the VRA in the SDWA is 'nnnnn' (see the Problem Determination section of this

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message). The full CSECT name given in the dump title is 'DSNnnnnn'.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSN1013I is issued to identify the inconsistent data page and its covering space map page. The database name and table space name will also be identified.

SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 32, 37.

00C9021C

Explanation: While running a utility, the data manager detected an inconsistent data condition. A row was encountered that is not represented by a record OBD in the database descriptor (DBD). This abend may indicate an internal DB2 error, but most likely occurs due to a user error. Possible user errors may include:

- Data from a DB2 subsystem was copied to another DB2 subsystem incorrectly. This is the most common error.
- DSNDB01.DBD01 was regressed to a time prior to a table being created.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs: DSNIRFNX, DSNISNPG

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The dump is required in the event that the problem is determined to be a DB2 internal error.

User Response: Notify the system programmer.

System Programmer Response: Determine if improper procedures were used to restore the table space or DBD that would lead to the inconsistency.

Problem Determination: Message DSN1013I will be issued.

If a DB2 internal error is indicated, collect the following diagnostic items:

- DSN1COPY of the user table space.
- DSN1COPY of DSNDB01.DBD01.

Also collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33, 37.

00C9021D

Explanation: During a LOAD/REORG utility or termination of a utility, the data manager detected an inconsistent data condition. A space map page was missing from the table space. This abend may indicate an internal DB2 error (caused by the utilities subcomponent passing a bad start position to the data manager), but most likely occurs due to a user error. Possible causes are that the table space data set has been deleted and redefined without DB2's knowledge, or that the table space was incorrectly restored from an improper DSN1COPY of the table space.

This abend reason code is issued by the following CSECT: DSNIDL0D

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The dump is required in the event that the problem is determined to be a DB2 internal error.

User Response: Notify the system programmer.

System Programmer Response: Determine if the data set was improperly restored or deleted and redefined by the user. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSN1013I will be issued. If the message information describes page 'xx0001'X of the table space, this indicates that the data set was deleted and redefined without DB2's knowledge.

If a DB2 internal error is indicated, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 10, 12, 31, 32, 33, 37, 43.

00C9021E

Explanation: The data manager detected an inconsistent data condition in a segmented table space. An invalid page was requested. The page number is outside the highest formatted RBA for the page set. Either the segment chain is broken, or the table space has been truncated. A truncated table space could be a possible user error.

This abend reason code is issued by the following CSECTs: DSNISGSC, DSNISNPG

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 3, 32, 37.

00C9021F

Explanation: The data manager detected an inconsistent data condition in a segmented table space. A duplicate first segment block for a table is found during the rebuilding of the first segment block in a segmented table space. The segment chain may be broken.

This abend reason code is issued by the following CSECT: DSNISEGR

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items:

- Console output from the system on which the job was run and a listing of SYSLOG data set for the period of time spanning the failure.
- Listing of SYS1.LOGREC data set, obtained by executing IFCEREP1.
- SVC dump (or system dump), taken to SYS1.DUMPxx data set, as a result of operator initiated dump command or SLIP trap exit.
- SYSPRINT output, including JCL, for the batch job and system messages that were issued
- Definitions of table spaces, tables, and indexes involved in the error
- Listing of the entire table space
- Listing of the DBD, obtained by executing UTILITY DIAGNOSE OBD.

00C90220

Explanation: The data manager detected an inconsistent data condition. In this case, free index page cannot be found in the index space. The problem could be caused by a problem detected by IRLM, such as out-of-storage, or some other problem.

This abend reason code is issued by the following CSECT: DSNISMXF.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the data pages. It identifies the database name, table space name, and index space name. This message is issued for all pages in use at the time of the abend. Within this group of pages, at least one page is involved in the inconsistency. The other pages were present at the time of the abend.

From the console output, determine if resource unavailable message DSNT500I/DSNT501I was given prior to the abend. If there is and the reason code given is 00C90092, 00C90093, or 00C90096, then refer to the description of the appropriate message in this book for more information. Otherwise, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 32, 33. Also collect a DSN1COPY output of the tables and indexes before any recover is performed.

00C90221

Explanation: The data manager detected an inconsistent data condition. In this case, a nonsegmented space map page was read for a table space that had been defined as segmented. This problem could be caused by incorrect use of the DSN1COPY service aid or a DB2 internal problem reading the space map page.

This abend reason code is issued by the following CSECT: DSNISGAU

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run for the period of

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time spanning the failure. Save this output for use in problem determination.

System Programmer Response: If you suspect an error in DB2, Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SYS1.LOGREC contains information in the variable recording area (VRA) of the system diagnostic work area (SDWA). Significant fields for this abend code are: VRARRK5, VRARRK6, VRARRK7, VRARRK8, and VRARRK9.

Refer also to Table 4 in Appendix B, "Problem determination," on page 1353 for further information on DSN1COPY misuse. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 32, 37.

00C90222

Explanation: While starting DB2, the data manager detected a utility in process (UTUT, UTRO or UTRW) state on an object that originated from Version 2 Release 3. This abend might indicate an internal DB2 error, but most likely occurs because of a user error. A possible user error is a result of not terminating all utilities before migrating to this release.

This abend reason code is issued by the following CSECT: DSNIERST

System Action: The -START DB2 command fails. A record is written to SYS1.LOGREC and an SVC dump is requested. The dump is required if the problem is determined to be a DB2 internal error.

User Response: Notify the system programmer.

System Programmer Response: Determine if an improper procedure was used to migrate to this release. If the utilities were not terminated before migrating, fall back to Version 2 Release 3 and restart DB2. Use the -TERM UTILITY command to terminate utilities, use the -DISPLAY UTILITY command to make sure no utility job is currently active, stop DB2, and remigrate to this release.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 31, 33.

00C90301

Explanation: The data manager detected an internal error with DB2 during RID LIST processing. The requested RIDMAP pointer can not be found in the specified CUB control block.

This abend reason code is issued by the following CSECTS:

DSNICMT2 DSNIRIDR DSNITCUS DSNXRFCH
DSNXRRID DSNXRFSN DSNXRSGB DSNXRT1J
DSNXSMIN DSNXSMRL DSNXSMUN DSNXSRID

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

User Response: Notify the system programmer.

Operator Response: Collect the console output from the system on which the job was run from the period of time spanning the failure. Save this output for use in problem determination.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 32, 37.

00C90303

Explanation: An attempt to make the database exception table (DBET) consistent failed after an agent failure.

System Action: The DB2 subsystem abends, a record is written to SYS1.LOGREC, and an SVC dump is requested.

Problem Determination: This reason code is issued by the following CSECT: DSNIDBPX

Restarting the member rebuilds the local DBET. Analyze SYS1.LOGREC and the dump to determine why the agent failed and why the attempt to make the DBET consistent failed.

00C90304

Explanation: START DATABASE recovery of GRECP cannot proceed because the recover base RBA value in the header page for the object is invalid. The following might have occurred:

- The data set was restored from an earlier release backup that does not have a starting RBA or LRSN in the header page.
- DSN1COPY RESET utility command.

System Action: The GRECP recovery for this object is terminated; all other objects being recovered by this START DATABASE command are not affected.

System Programmer Response: Use the RECOVER utility without the LOGONLY option.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNISREC

00C90611

Explanation: The Security Server was unable to process this row-level, Multilevel Security (MLS) request.

System Action: The operation that was requested is not performed.

System Programmer Response: Refer to the Security Server documentation for advice regarding corrective action, and an explanation of the SAF/RACF return/reason codes that were placed in resource-name.

00C90614

Explanation: DB2 attempted to load a DBD during DB2 startup in deferred mode.

System Action: Startup continues, and the DBD is not loaded.

User Response: After DB2 startup is complete, the DBD can be loaded or recovered.

00C90D01

Explanation: DB2 detected an inconsistent condition. An entry in the auxiliary index was not found. The error is probably caused by not recovering all table spaces in a table space set to the same point-in-time.

This abend reason code is issued by the following CSECTs: DSNONLLE and DSNOTCSO

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the index page. Run CHECK INDEX on the auxiliary index followed by CHECK DATA on the base table space in order to identify the inconsistencies. See DB2 Utility Guide and Reference for information about CHECK INDEX and CHECK DATA.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

Chapter 39. X'D1.....' codes

For X'D1' codes, DB2 provides the following diagnostic information in the SYS1.LOGREC variable recording area (VRA) of the SDWA for many of the reason codes:

MODID

Name of module issuing the abend

LEVEL

Change level

COMPONENT

Subcomponent ID

REGISTERS

General purpose registers (GPRs) 0 through 15 at time of abend

00D10010

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issues this reason code. The RANGE parameter on the OPEN request specifies the address of a 12-byte area containing the log relative byte address (RBA) range to be processed by subsequent GET requests. However, the RBA specified in the second six bytes of the RANGE parameter (which indicates the end of the log RBA) is less than or equal to the RBA specified in the first six bytes of the RANGE parameter (which indicates the start of the log RBA).

This reason code is issued by the following CSECT: DSNJRS01

System Action: In response to the DSNJSLR FUNC=OPEN call, DB2 places a return code of 8 in register 15 and a reason code of 00D10010 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user application program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Correct the RANGE RBA parameter input, and resubmit the request.

00D10011

Explanation: The DB2 stand-alone log services OPEN and GET processing macro (DSNJSLR) issued this reason code. During the initial processing of a FUNC=OPEN or FUNC=GET request, storage is obtained to contain the control blocks and other

information required to process this request. An MVS GETMAIN failed when attempting to obtain the required storage.

This reason code is issued by the following CSECTs:

DSNJRS01 DSNJRS03 DSNJRS04

System Action: In response to the DSNJSLR FUNC=OPEN or FUNC=GET call, DB2 places a return code of 8 in register 15 and a reason code of 00D10011 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: In all likelihood, the REGION parameter on the EXEC statement for the user program is too small. Increase the REGION size, and resubmit the user program.

00D10012

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. The Job Control Language (JCL) for the user program that uses the DSNJSLR macro must specify either the use of the bootstrap data set (BSDS) or, in the absence of the BSDS, the active or archive data set(s) which is used in the processing. The FUNC=OPEN request failed because neither BSDS nor any log data set is allocated for the job.

00D10013 • 00D10015

This reason code is issued by the following CSECT:
DSNJRS01

System Action: In response to the DSNJSLR FUNC=OPEN call, DB2 places a return code of 8 in register 15 and a reason code of 00D10012 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Correct the JCL and resubmit the user program.

00D10013

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. A VSAM OPEN error occurred while opening the bootstrap data set (BSDS).

This reason code is issued by the following CSECT:
DSNJRS04

System Action: In response to the DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10013 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the OPEN request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM OPEN error return code is placed in SLRFRG15. The ACB error code (ACBERFLG) is placed in SLRFERCD.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Refer to the *z/OS DFSMS: Macro Instructions for Data Sets* to determine the meaning of the VSAM OPEN error returned in SLRFRG15, and the ACB error code returned in

SLRFERCD. Take appropriate action, and resubmit the FUNC=OPEN request.

00D10014

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. The Job Control Language (JCL) associated with the user-written application determines how access to the DB2 log data is achieved. Access can either be through the bootstrap data set (BSDS), or through the explicit inclusion of ddnames in the JCL for the active or archive log data set(s) which are to be examined. If the BSDS method is used, the user must specify a RANGE parameter on the FUNC=OPEN call. This reason code indicates that the user used the BSDS method, but did not specify the range of RBAs to be examined.

This reason code is issued by the following CSECT:
DSNJRS01

System Action: In response to the DSNJSLR FUNC=OPEN call, DB2 places a return code of 8 in register 15 and a reason code of 00D10014 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Two choices are available:

1. Continue to use the BSDS method of access. If this choice is made, then the FUNC=OPEN invocation must specify a range of RBAs to be examined by use of the RANGE parameter.
2. Replace the use of the BSDS method of access. This can be done by using explicit archive data set ddnames and/or active log data set ddnames in the JCL used to invoke the user-written application program.

00D10015

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. The VSAM OPEN of the bootstrap data set was successful but the record format of the BSDS is invalid. An invalid BSDS is the result of a failure during a prior attempt to run conversion program DSNJCNVB.

System Action: In response to DSNJSLR

FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10015 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must, therefore, anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to the nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: The procedure for running program DSNJCNVB includes making a copy of the BSDS prior to conversion. Restore the BSDS to the original pre-conversion copy, and retry the conversion. When the BSDS data set has been successfully converted, rerun the original application program.

00D10016

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. In the job control language (JCL) associated with the user-written application, MxxARCHV and/or MxxACTn DD statements were specified for a DB2 member while MxxBSDS was also specified for the same member. However, the specification of MxxARCHV and MxxACTn DD statements is mutually exclusive with the specification of MxxBSDS DD statement for the same member.

This reason code is issued by the following CSECT: DSNJRS06

System Action: In response to DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10016 in register 0. No abend is issued by the stand-alone log services, and no information is written to SYS1.LOGREC data set.

User Response:

Correct the JCL and rerun the job. Specify either the DD statements for the log data sets (MxxARCHV and MxxACTN) or the DD statement for the BSDS (MxxBSDS) for a given member; do not specify both.

For additional details about the stand-alone log services, including a sample of an application program that reacts to the nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

00D10017

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. The job control language (JCL) associated with the user-written application indicated that the logs from more than one DB2 member were to be read in CI mode. However, CI mode is allowed only when reading the log of a single DB2 system.

This reason code is issued by the following CSECT: DSNJRS06

System Action: In response to DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10017 in register 0. No abend is issued by the stand-alone log services, and no information is written to SYS1.LOGREC data set.

User Response:

Either remove the CI mode from the OPEN request to read log records of more than one member or change the JCL to specify only one system's log to read its log in CI mode.

For additional details about the stand-alone log services, including a sample of an application program that reacts to the nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

00D10018

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. In the job control language (JCL) associated with the user-written application, more than one DB2 system's logs were identified. However, on the OPEN request an RBA range was specified. When reading logs from more than one DB2 system, you cannot specify an RBA range; you must specify an LRSN range.

This reason code is issued by the following CSECT: DSNJRS06

System Action: In response to DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10018 in register 0. No abend is issued by the stand-alone log services, and no information is written to SYS1.LOGREC data set.

User Response: Correct the range specification on the OPEN request, and rerun the job. If range is specified when reading log records from multiple members, LRSN=YES must also be specified. Also range must be specified if GROUP DD or a MxxBSDS (BSDS) DD is specified in the JCL.

For additional details about the stand-alone log services, including a sample of an application program which reacts to the nonzero return codes and nonzero

reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

00D10019

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. A VSAM OPEN error occurred while opening the bootstrap data set (BSDS). The error was determined to be one which could be corrected by use of an AMS VERIFY, but the VERIFY also failed.

This reason code is issued by the following CSECT: DSNJRS04

System Action: In response to the DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10019 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the OPEN request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM return code from the original VSAM OPEN error is placed in SLRFRG15. The ACB error code (ACBERFLG) from the ACB used in the original VSAM OPEN operation is placed in SLRFERCD.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Refer to the *z/OS DFSMS: Macro Instructions for Data Sets* to determine the meaning of the VSAM OPEN error returned in SLRFRG15, and the ACB error code returned in SLRFERCD. take appropriate action, and resubmit the FUNC=OPEN request.

00D10020

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The end of data has been reached (end of the log, end of the user-specified log data set(s), or end of the log RBA range specified by the RANGE parameter).

This reason code is issued by the following CSECTS: DSNJRS02, DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10020 in register 0. No abend is issued by the stand-alone log services

CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: This is not an error; rather, this reason code denotes a normal end of data condition. No action is necessary.

00D10021

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A gap in the log RBA range has been encountered when switching log data sets, indicating missing log records.

This condition may or may not be intentional on the part of the user. Normally, a continuous set of log records are supplied as input by the ACTIVE_n and ARCHIVE ddnames in the user's JCL. If a log data set was intentionally (or unintentionally) removed, this condition will arise.

This reason code is issued by the following CSECT: DSNJRS02

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10021 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). A pointer to the next log record following the gap is placed in SLRFFRAD.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

System Programmer Response: As mentioned above, this may or may not be an intentional error. Check the user's JCL to ensure that a continuous string of log records has been supplied. If the BSDS method is being used, use the print log map (DSNJU004) utility

to examine the RBA ranges as recorded in the BSDS, and note any RBA gaps which may have resulted from the deletion of an active log data set or an archive log data set.

If it appears that a log error may have occurred, execute the log print utility (DSN1LOGP) to attempt to obtain a detailed report of the log record(s) associated with the failure. If the DSN1LOGP utility fails, refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.

00D10022

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A gap in the log RBA range has been encountered when switching log data sets, indicating missing log records, and the log RBA of the next record following the gap is greater than the end RBA of the RBA range specified by the RANGE parameter.

This condition may or may not be intentional on the part of the user. Normally, a continuous set of log records are supplied as input by the ACTIVE_n and ARCHIVE_n ddnames in the user's JCL. If a log data set was intentionally (or unintentionally) removed, this condition will arise.

This reason code is issued by the following CSECTs: DSNJRS03, DSNJRS04

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 8 in register 15 and a reason code of 00D10022 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). A pointer to the next log record following the gap is placed in SLRFFRAD.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: As mentioned above, this may or may not be an intentional error. Check the RBA range specified on the RANGE parameter to determine if the end RBA value was in error. Check the user's JCL to ensure that a continuous string of log records has been supplied. If the BSDS method is being used, use the print log map (DSNJU004) utility to examine the RBA ranges as

recorded in the BSDS, and note any RBA gaps which may have resulted from the deletion of an active log data set or an archive log data set.

If it appears that a log error may have occurred, execute the log print utility (DSN1LOGP) to attempt to obtain a detailed report of the log record(s) associated with the failure. If the DSN1LOGP utility fails, refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.

00D10023

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A gap in the log RBA range has been encountered, and a conditional restart record has been found beyond a conditional restart truncation point. This condition exists when a log RBA gap was intentionally forced by the user as part of log truncation during conditional restart.

This reason code is issued by the following CSECT: DSNJRS02

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10023 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The length, address, and RBA of the conditional restart record are placed in fields SLRFRCLL, SLRFFRAD and SLRFRBA, respectively.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Use the print log map (DSNJU004) utility to examine the conditional restart control records and the RBA ranges of log data sets. Note any RBA gaps which may have resulted from the truncation of the log during a conditional restart.

If it appears that a log error may have occurred, execute the log print utility (DSN1LOGP) to attempt to obtain a detailed report of the log record(s) associated with the failure. If the DSN1LOGP utility fails, refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.

00D10024

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A log RBA sequence error has occurred. The RBA of the previous log record is greater than the RBA of the current log record.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 8 in register 15 and a reason code of 00D10024 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). A pointer to the next log record following the gap is placed in SLRFFRAD.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: The DD statements in the user's Job Control Language (JCL) must specify the log data sets in ascending log RBA range order. If both ARCHIVE and ACTIVE_n DD statements are included, the first archive data set must contain the lowest log RBA value.

Use the print log map (DSNJU004) utility to obtain a listing of the RBA ranges associated with each archive log data set and active log data set. If necessary:

- Adjust the concatenation sequence of the archive data sets in the user's JCL to ensure that the log records are read in ascending RBA sequence.
- Adjust the order of the active log data sets such that the RBA range is arranged in ascending order, starting with the ACTIVE₁ ddname, and progressing through the ACTIVE_n ddname.

Following the above adjustments, resubmit the user's JCL.

00D10025

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A VSAM error occurred while reading an active log data set.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D10025 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM GET error return code is placed in SLRFRG15. The RPL error code (RPLERRCD) is placed in SLRFRERCD. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Refer to the z/OS *DFSMS: Macro Instructions for Data Sets* to determine the meaning of the VSAM GET error returned in SLRFRG15, and the RPL error code returned in SLRFRERCD. Take appropriate action to correct the error.

00D10026

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing was unable to locate a log data set containing the requested RBA.

This reason code is issued by the following CSECT: DSNJRS04

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 8 in register 15 and a reason code of 00D10026 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA for which the GET request failed is placed in SLRFRBA.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: There could be several reasons for this error:

- The RBA range supplied in the RANGE parameter may have exceeded the upper or lower bound of RBAs available on all active log data sets and all archive log data sets. This will normally occur when the user has specified the bootstrap data set (BSDS) method in the JCL.
- The RBA range supplied in the RANGE parameter may have exceeded the upper or lower bound of RBAs available on the active log data sets and/or archive log data sets supplied in the user's JCL. This will occur when the user has supplied log data sets using the ACTIVE and ARCHIVE ddnames.

To resolve the problem, use the print log map (DSNJU004) utility to obtain a listing of the archive and active log data sets, and their corresponding RBA ranges. Check the user's JCL and the user's RANGE parameter to ensure that they are in harmony with one another. Correct the JCL and RANGE parameters as necessary, and rerun the application.

00D10027

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A VSAM error occurred while reading the bootstrap data set (BSDS).

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D10027 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM GET error return code is placed in SLRFRG15. The RPL error code (RPLERRCD) is placed in SLRFRERCD.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero

reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Refer to the z/OS *DFSMS: Macro Instructions for Data Sets* to determine the meaning of the VSAM GET error returned in SLRFRG15, and the RPL error code returned in SLRFRERCD. Take appropriate action to correct the error.

00D10028

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. Both LRSN range and CI mode read were specified on the OPEN request when reading the log of a DB2 system. However, when reading the log in CI mode, range can be specified only in RBA.

This reason code is issued by the following CSECT: DSNJRS06

System Action: In response to DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10028 in register 0. No abend is issued by the stand-alone log services, and no information is written to SYS1.LOGREC data set.

User Response: Correct the range specification on the OPEN request, and rerun the job.

For additional details about the stand-alone log services, including a sample of an application program which reacts to the nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

00D10029

Explanation: The DB2 stand-alone log services OPEN processing macro (DSNJSLR) issued this reason code. The BSDS data set of a member named in the BSDS data set pointed to by the GROUP DD statement cannot be allocated.

This reason code is issued by the following CSECT: DSNJRS06

System Action: In response to DSNJSLR FUNC=OPEN call, DB2 places a return code of 12 in register 15 and a reason code of 00D10029 in register 0. No abend is issued by the stand-alone log services, and no information is written to SYS1.LOGREC data set.

User Response: Make sure the BSDS data set of every member named in the BSDS data set pointed to by the GROUP DD statement is available for allocation. If the missing BSDS data set belongs to a member that is no longer active and its BSDS data set does not exist any more, then do not use GROUP DD to allocate required BSDS and log data sets. To read log records of other active members, specify a MxxBSDS DD statements for each active member. The print log map

00D1002A • 00D1002C

(DSNJU004) utility can be used to find the name of every member's BSDS data set.

For additional details about the stand-alone log services, including a sample of an application program which reacts to the nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

00D1002A

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in an active log data set which was previously not opened. A VSAM OPEN error occurred while opening the active log data set.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D1002A in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM OPEN error return code is placed in SLRFRG15. The ACB error code (ACBERFLG) is placed in SLRFERCD. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Refer to the *z/OS DFSMS: Macro Instructions for Data Sets* to determine the meaning of the VSAM OPEN error returned in SLRFRG15, and the ACB error code returned in SLRFERCD. Take appropriate action, and then resubmit the application job.

00D1002B

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in an active log data set which was previously not opened. A VSAM OPEN error occurred while opening the active log data set. The error was determined to be one which could be corrected; however, a system error occurred while

executing an MVS TESTCB macro to determine whether the active log data set which had just been opened was a VSAM ESDS data set or a VSAM LDS data set.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D1002B in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM return code from the original VSAM OPEN error is placed in SLRFRG15. The ACB error code (ACBERFLG) from the ACB used in the original VSAM OPEN operation is placed in SLRFERCD. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Refer to the *z/OS DFSMS: Macro Instructions for Data Sets* to determine the meaning of the VSAM OPEN error returned in SLRFRG15, and the ACB error code returned in SLRFERCD. Take appropriate action, and resubmit the application job.

If the SLRFERCD field contains X'1001' (decimal 4097), then the error is the result of an inconsistency between the TESTCB parmlist generated in DSNJRS03 and the level of MVS under which the application program was executed. Contact IBM for assistance if SLRFERCD reflects this value.

00D1002C

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in an active log data set which was previously not opened. A VSAM OPEN error occurred while opening the active log data set. The error was determined to be one which could be corrected by use of an access method services VERIFY, but the access method services VERIFY failed.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D1002C in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM return code from the original VSAM OPEN error is placed in SLRFRG15. The ACB error code (ACBERFLG) from the ACB used in the original VSAM OPEN operation is placed in SLRFERCD. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Refer to the *z/OS DFSMS: Macro Instructions for Data Sets* to determine the meaning of the VSAM OPEN error returned in SLRFRG15, and the ACB error code returned in SLRFERCD. Take appropriate action, and resubmit the application job.

00D1002D

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in an active log data set which was previously not opened. A VSAM OPEN error occurred while opening the active log data set. The open error was corrected by use of an access method services VERIFY, but a subsequent attempt to reposition the VSAM pointer back to the beginning of the active log data set (via access method services POINT) failed.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D1002D in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The VSAM return code from the original VSAM OPEN error is placed in SLRFRG15. The ACB error code (ACBERFLG) from the ACB used in the original

VSAM OPEN operation is placed in SLRFERCD. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Refer to the *z/OS DFSMS: Macro Instructions for Data Sets* to determine the meaning of the VSAM OPEN error returned in SLRFRG15, and the ACB error code returned in SLRFERCD. Take appropriate action (in most cases, the problem can be solved by use of an AMS VERIFY against the active log data set named in the SLRFDDNM field of the SLRF). Once the problem is solved, resubmit the application job.

00D10030

Explanation: The DB2 stand-alone log services GET and CLOSE processing macro (DSNJSLR) issued this reason code. The stand-alone log services uses a request block to establish communication between itself and the invoking application program. The address to the request block is returned to the application program on a FUNC=OPEN call, and is required for all subsequent stand-alone FUNC=GET and FUNC=CLOSE calls in the RBR parameter. This reason code is returned to the invoking application when the RBR does not address a valid stand-alone request block. Subsequently, the application program's request cannot be processed.

This reason code is issued by the following CSECT: DSNJRS01

System Action: In response to the DSNJSLR FUNC=GET or FUNC=CLOSE call, DB2 places a return code of 8 in register 15 and a reason code of 00D10030 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero

reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: On a FUNC=OPEN call, the RBR value is returned in register 1. The application program must preserve this value for all subsequent stand-alone FUNC=GET and FUNC=CLOSE calls. Due to an application program logic error in the program which invokes the stand-alone log services, the RBR value has been compromised. Repair the application program, and resubmit the application job.

00D10031

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in a log data set which was previously not opened. The user's Job Control Language (JCL) has specified that the bootstrap data set (BSDS) be used as the guide to determining which log data sets are required. An attempt to dynamically allocate the appropriate log data set (via MVS SVC 99) failed.

This reason code is issued by the following CSECT: DSNJRS05

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D10031 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The SVC 99 error code (S99ERROR) and information code (S99INFO) are placed in the SLRFRFC and SLRFINFO fields, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Refer to the appropriate MVS publication to determine the meaning of the SVC 99 error code (S99ERROR) returned in SLRFRG15, and SVC 99 information code (S99INFO) returned in SLRFINFO. Take the appropriate action to correct the error, and resubmit the application job.

00D10040

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in an archive log data set which was previously not opened. An attempt is made to open the second file on the archive log tape (the first file normally contains the bootstrap data set, while the second is normally the archive log data set). If this first attempt failed because the archive log data set was not the second file on an archive tape, then the RDJFCB macro is used to change the data set sequence number from the default value of 2 to a value of 1, before the OPEN is attempted again. This reason code is generated when an error was returned from the RDJFCB macro.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D10040 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RDJFCB error code is placed in SLRFRG15. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Refer to the *DFSMS/MVS: Using Advanced Services* to determine the meaning of the RDJFCB error code returned in SLRFRG15. Take the appropriate action to correct the error, and resubmit the application job.

00D10044

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The GET processing has requested an RBA in an archive log data set which was previously not opened. The attempt to open the archive log data set failed.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in

register 15 and a reason code of 00D10044 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The dname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, if you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

System Programmer Response: Determine the cause of the QSAM OPEN error, take the appropriate action to correct the error, and resubmit the application job.

00D10048

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. A QSAM GET error occurred while reading an archive log data set.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 12 in register 15 and a reason code of 00D10048 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The dname of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Determine the cause of the QSAM GET error, take the appropriate

action to correct the error, and resubmit the application job.

00D10050

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The bootstrap data set (BSDS) was erroneously specified as one of the ARCHIVE data sets in the user's Job Control Language (JCL). Consequently, the GET request failed.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 8 in register 15 and a reason code of 00D10050 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the requested log record control interval is placed in SLRFRBA.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Examine the user's JCL, and remove the occurrence of the BSDS data set as one of the concatenated ARCHIVE data sets. Resubmit the application job.

00D10061

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The log record control interval (CI) requested by the application program was read successfully from an active log data set or an archive log data set. However, the physical record length returned from reading the CI is not the expected length. The GET function will complete, but will issue this reason code as a warning.

The length of a log CI in an active log data set is expected to be 4089 bytes. The length of a log CI in an archive log data set is expected to be 4096 bytes.

This reason code is issued by the following CSECT: DSNJRS03

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in

00D10062 • 00D10063

register 15 and a reason code of 00D10061 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. The GET function will complete, but will issue this reason code as a warning.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The length and address of the CI are placed in fields SLRFRCLL and SLRFFRAD, respectively. The RBA associated with the CI is placed in SLRFRBA. The 'ddname' of the data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: The RDF/CIDF control information in the CI has been compromised. If the SLRFRCLL field indicates a value greater than expected, then the data within the CI can still be used by the application program. If the SLRFRCLL field indicates a value less than expected, then the data within the CI in all likelihood can still be used, but with caution (additional error checking routines may be required by the user program).

00D10062

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The requested record was found to be a middle spanned record segment, but a preceding first record segment does not exist. The GET function will complete, but will issue this reason code as a warning.

This reason code is issued by the following CSECT: DSNJRS02

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10062 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. The GET function will complete, but will issue this reason code as a warning.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The length and address of the requested record are placed in fields SLRFRCLL and SLRFFRAD, respectively. The RBA associated with the log record segment is placed in SLRFRBA. The ddname of the

data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Several possibilities exist for the cause of this condition:

- The Recovery Log Manager component of DB2 did not originally construct the LRH properly.
- The log record header (LRH) for the log record segment was damaged after it was written by the DB2 subsystem.
- The application program continued to process after receipt of a 00D10021 reason code (gap in the log).

If the error was caused by the application program, modifications to the application program may be required.

If the error is a suspected DB2 problem, run the log print (DSN1LOGP) utility, specifying a range of RBAs which would encompass the problem RBA. Determine if the LRH of the log record segment is truly in error by looking at the record segments directly preceding and after the record segment in question.

00D10063

Explanation: The DB2 stand-alone log services GET processing macro (DSNJSLR) issued this reason code. The requested record was found to be a last spanned record segment, but a preceding first record segment does not exist. The GET function will complete, but will issue this reason code as a warning.

This reason code is issued by the following CSECT: DSNJRS02

System Action: In response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10063 in register 0. No abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. The GET function will complete, but will issue this reason code as a warning.

Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The length and address of the requested record are placed in fields SLRFRCLL and SLRFFRAD, respectively. The RBA associated with the log record segment is placed in SLRFRBA. The ddname of the

data set on which the activity occurred is placed in SLRFDDNM.

The stand-alone log services program is under the control of a user-written program that uses the DSNJSLR macro. The user program must therefore anticipate and react to a nonzero return code and a nonzero reason code, possibly by terminating the execution of the user program.

For additional details about the stand-alone log services, including a sample of an application program which reacts to nonzero return codes and nonzero reason codes, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

System Programmer Response: Several possibilities exist for the cause of this condition:

- The Recovery Log Manager component of DB2 did not originally construct the log record header (LRH) properly.
- The LRH for the log record segment was damaged after it was written by the DB2 subsystem.
- The application program continued to process after receipt of a 00D10021 reason code (gap in the log).

If the error was caused by the application program, modifications to the application program may be required.

If the error is a suspected DB2 problem, run the log print (DSN1LOGP) utility, specifying a range of RBAs which would encompass the problem RBA. Determine if the LRH of the log record segment is truly in error by looking at the record segments directly preceding and after the record segment in question.

00D10101

Explanation: The ENDRBA value specified in the control statement was either greater or less than any known RBA, but cold start was not specified for the conditional restart.

This abend reason code is issued by the following CSECT: DSNJW306

System Action: DB2 startup is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Run the change log inventory (DSNJU003) utility with a CRESTART control statement that has an RBA value known to the system in the BSDS, or that has the ENDRBA and STARTRBA specifying the same RBA (cold start).

Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for more information.

00D10102

Explanation: A request to disable data sharing failed.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect an SVC dump, and contact the system programmer.

System Programmer Response: Obtain the SVC dump for the return code. To disable data sharing, you must run the disable data sharing job (DSNTIJGF) and then restart DB2. For more information, see Chapter 2 of *DB2 Data Sharing: Planning and Administration*.

Problem Determination: General register 2 contains a return code. Explanation of the return code is as follows:

- | | |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2 | A request to disable data sharing is in the BSDS, but a conditional restart record is not present. You must use job DSNTIJGF for the correct conditional restart control record. |
| 4 | A request to disable data sharing is recorded in the BSDS, but the conditional restart record is not correct. You cannot request a normal conditional restart with a disable request. You must use job DSNTIJGF. |
| 8 | Update of the BSDS failed. Data sharing was not disabled. See DB2 code 00D10411 for problem determination. After the BSDS problem is fixed, run DSNTIJGF to disable data sharing, and then restart DB2. |
| 10 | A delete in the BSDS failed. Data sharing was not disabled. See DB2 code 00D10413 for problem determination. After the BSDS problem is fixed, run DSNTIJGF to disable data sharing, and then restart DB2. |

00D10103

Explanation: DB2 failed to open the shared communications area (SCA) structure.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

00D10104

Explanation: DB2 failed to find the data sharing member record in the BSDS during DB2 startup.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: If this is the first startup of a new member joining the data sharing group, run the DSNTIJUZ job created to enable data sharing for this DB2 subsystem, and then restart this DB2 subsystem. Also, check whether the correct BSDS is specified in the DB2 master startup procedure. See message DSN7501A for additional problem determination.

00D10105

Explanation: DB2 found a mismatch in the shared communications area (SCA) while a new member was attempting to join a data sharing group.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: This indicates that a new member is attempting to join the data sharing group. If this a migration from DB2 3.1, then catalog migration must be completed before a new member can join this data sharing group. Wait until catalog migration completes, then restart this DB2 to join the group. Otherwise, group restart is required. Wait until group restart completes, then restart this DB2 to join the group. For more information, see Chapter 2 of *DB2 Data Sharing: Planning and Administration*.

00D10106

Explanation: DB2 failed to update an internal control record in the BSDS for data sharing.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See DB2 code 00D10411 for problem determination.

00D10107

Explanation: DB2 failed to insert an internal control record in the BSDS for data sharing re-enable.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See DB2 code 00D10412 for problem determination.

00D10108

Explanation: DB2 failed to write an internal control record for re-enable in the shared communications area (SCA) structure.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See message DSN7501A for problem determination.

00D10109

Explanation: DB2 found a shared communications area (SCA) structure during the data sharing re-enable process. This structure should not be built at this time.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Display the existing SCA structures on this MVS system.

Problem Determination: If an SCA structure already exists for this DB2 data sharing group, use the MVS command SETXCF to delete this structure, then restart DB2 to complete the re-enable process.

00D1010A

Explanation: DB2 failed to write a record for re-enable in the shared communications area (SCA) structure.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

00D1010B

Explanation: DB2 failed to update an internal control record in the BSDS to enable data sharing.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See DB2 Code 00D10411 for problem determination.

00D1010C

Explanation: DB2 failed to write an internal control record in the shared communications area (SCA) to enable data sharing.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

00D1010D

Explanation: DB2 could not find an internal control record for data sharing in the BSDS or the shared communications area (SCA).

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Check to be sure that this DB2 system is supposed to be part of a data sharing group. If this DB2 is in a group, you can restart another DB2 subsystem that is in the same DB2 data sharing group first, and then restart. If no other DB2 subsystems exist in this group, you must recover the BSDS before restarting.

00D1010E

Explanation: DB2 failed to write an internal control record for a data sharing restart in the shared communications area (SCA) structure.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

00D1010F

Explanation: DB2 failed an attempt to change the generic LU or location name in the shared communications area (SCA) structure for the data sharing group.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis. All members in the data sharing group must first be stopped, then this DB2 subsystem can be restarted to make this change.

Problem Determination:

00D10110

Explanation: DB2 failed to write an internal control record for a generic LU or location name change in the shared communications area (SCA) structure.

00D10111 • 00D10116

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: DB2 failed in a write to the SCA structure for a data sharing restart change. Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

00D10111

Explanation: DB2 failed to find an internal record in the shared communications area (SCA) that is needed to re-enable data sharing.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis. To re-enable data sharing, you must start the surviving DB2 member first before other members can be started. If this is meant to be a re-enable attempt, check whether the surviving member was started first. If this re-enable is already complete, check that this is the correct data sharing group.

Another possibility is that the SCA is damaged. Use the MVS command SETXCF to rebuild the SCA.

00D10112

Explanation: DB2 failed to update an internal control record in the BSDS for a generic LU or location name change.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: DB2 failed in an update to the BSDS for a data sharing generic LU or location name change. See DB2 Code 00D10411 for problem determination.

00D10113

Explanation: DB2 failed to update a data sharing member's information record in the BSDS to enable data sharing.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See DB2 Code 00D10411 for problem determination.

00D10114

Explanation: DB2 failed to write a data sharing member information record in the shared communications area (SCA) for a restart of data sharing.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

00D10115

Explanation: DB2 failed to update the data sharing record in the BSDS to reset the enable flag.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See DB2 code 00D10411 for problem determination.

00D10116

Explanation: DB2 failed to update an internal control record in the BSDS for non-data sharing migration or fallback with DB2.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: See DB2 Code 00D10411 for problem determination.

00D10117

Explanation: DB2 failed to truncate and switch to a new log for data sharing re-enable.

This abend reason code is issued by the following CSECT: DSNJS001

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: Determine why DB2 failed to truncate and switch to a new log. DB2 might be using the last log. If so, determine why off-load has not occurred. See DB2 messages DSNJ319I and DSNJ320I for problem determination.

00D10210

Explanation: An internal logic error occurred during processing.

System Action: The error is recorded in SYS1.LOGREC and an SVC dump is requested. DB2 then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the System Programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. This is likely an error in DB2.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 16.

00D10219

Explanation: DB2 found that the current LRSN is less than the prior LRSN after calculating a delta for the current LRSN.

System Action: DB2 terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: This indicates that the system time is now less than the time recorded earlier in the DB2 log data set. Check that this DB2 subsystem is using the correct BSDS and log data sets. Also check that the correct system time is being used.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10220

Explanation: An unsuccessful completion of a LOG WRITE has occurred. An invalid write cursor ID was supplied.

This abend reason code is issued by the following CSECT: DSNJW001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

00D10221

Explanation: An unsuccessful completion of a LOG WRITE has occurred. An invalid number of areas was specified.

This abend reason code is issued by the following CSECT: DSNJW001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10222 • 00D10240

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

00D10222

Explanation: An unsuccessful completion of a LOG WRITE has occurred. The record length specified was greater than 32767.

This abend reason code is issued by the following CSECT: DSNJW001

System Action: An execution unit writes a record SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

00D10223

Explanation: There was an attempt to modify a log data set while doing a conditional restart with CSRONLY specified.

This abend reason code is issued by the following CSECTS: DSNJB001, DSNJW001

System Action: DB2 startup terminates.

Operator Response: Notify the system programmer.

System Programmer Response: If a complete DB2 startup is desired, remove CSRONLY from the control statement. Restart DB2.

00D10230

Explanation: A CHECK LOG was issued and the log RBA specified in the macro had not been written to DASD at the time.

This abend reason code is issued by the following CSECT: DSNJW004

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

00D10231

Explanation: An unsuccessful completion of a CHECK LOG has occurred. The specified RBA is beyond the end of the log.

This abend reason code is issued by the following CSECT: DSNJW004

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

00D10232

Explanation: A request was made to force an LRSN in non-data sharing mode.

System Action: DB2 issues an SVC dump and returns an error to the requesting function.

Operator Response: Collect the SYS1.LOGREC and SVC dump and contact the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump for analysis.

Problem Determination: The requesting function can be determined from the SVC dump. It has requested a data sharing log manager function in non-data sharing.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10240

Explanation: An unsuccessful completion of a CLOSE LOG FOR WRITE has occurred. An invalid write cursor ID was supplied.

This abend reason code is issued by the following CSECT: DSNJW002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

00D10250

Explanation: An unrecoverable error occurred while updating either the BSDS or the MVS catalog to reflect changes in active log data sets.

This abend reason code is issued by the following CSECT: DSNJW307

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. DB2 then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Correct the error, and restart DB2.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, see abend reason code '00D10252' for a description of the information recorded in the variable recording area (VRA) of the SDWA. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Examine the console log for a DSNJxxxx message preceding this abend to determine whether the error was a BSDS error or an MVS catalog update error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 16.

00D10251

Explanation: An unrecoverable error occurred in the log buffer writer.

This abend reason code is issued by the following CSECT: DSNJW008

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. DB2 then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump.

This error is usually caused by a previous error that was recorded on SYS1.LOGREC and produced an SVC dump. The SYS1.LOGREC entries and SVC dump should be examined to determine the primary error that occurred.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, see abend reason code '00D10252' for a description of the information recorded in the variable recording area (VRA) of the SDWA. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 16.

00D10252

Explanation: This abend reason code is used to define the format of the information recorded in the variable recording area (VRA) of the SDWA.

This abend reason code is issued by the following CSECT: DSNJW008

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, the following information is contained in the variable recording area (VRA) of the SDWA:

- Reason code '00D10252' stored with key=VRARC.
- The log buffer writer recovery tracking area is stored with key=VRARRP. These fields in the VRA are described by the system mapping macro IHAVRA.

00D10253 • 00D10256

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00D10253

Explanation: An application program check occurred in an MVCP instruction that attempted to move a parameter list or other data from the caller's address space to the recovery log manager address space.

This abend reason code is issued by the following CSECTs:

DSNJR001 DSNJW001 DSNJW002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Examine the area from which data was to be moved. It may be in the wrong key, or the address may be the cause of the problem. The failing instruction has a DA opcode and indicates the registers showing address and length to be moved.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D10254

Explanation: An application program check occurred in an MVCS instruction that attempted to move data from the recovery log manager address space to the caller's address space.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Examine the area to which data was to be moved. It may be in the wrong key, or the address may be the cause of the problem. The failing instruction has a DB opcode and indicates the registers showing address and length to be moved.

Problem Determination: RLM standard diagnostic

information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D10255

Explanation: DSNJR008 attempted to resume the waiting execution unit, and a failure occurred leaving the state of the resume indoubt.

This abend reason code is issued by the following CSECTs: DSNJRE08, DSNJW206

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The DB2 subsystem then terminates to avoid leaving the execution unit in a state of indefinite suspension.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, register 6 has the address of the execution block (EB).

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D10256

Explanation: Recursive abends were detected while trying to reinitialize an archive log read service task.

This abend reason code is issued by the following CSECTs: DSNJR008 DSNJR206 DSNJR208

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The DB2 subsystem then terminates to avoid leaving an execution unit in a state of indefinite suspension.

Operator Response: Collect the SYS1.LOGREC, SVC dump, and console output. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC, the SVC dump, and a listing of the BSDS by running the print log map (DSNJU004) utility. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 2, 5, 16, 32.

00D10261

Explanation: While scanning the records and record segments in a log control interval (CI), it was discovered that the forward record chain was broken. This condition is the result of an incorrect record length in the log record header of some record in the log CI.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009
DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10261 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET feedback area (SLRF). The RBA of the record in error is placed in SLRFRBA. The address and length of the CI which contains the errant log record header are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC

and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under Chapter 39, "X'D1.....' codes," on page 871.
- Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.
- Refer to Appendix C (Volume 2) of *DB2 Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10262

Explanation: While scanning a log control interval (CI), the offset to the last record or record segment in the CI was found to be incorrect.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009
DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.

00D10263

- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10262 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the beginning of the CI is placed in SLRFRBA. The address and length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under Chapter 39, "X'D1.....' codes," on page 871.
- Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.
- Refer to Appendix C (Volume 2) of *DB2 Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log Services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10263

Explanation: While scanning a log control interval (CI), the VSAM RDF/CIDF control information was found to be incorrect.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009
DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10263 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the beginning of the CI is placed in SLRFRBA. The address and length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under Chapter 39, "X'D1.....' codes," on page 871.

- Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.
- Refer to Appendix C (Volume 2) of *DB2 Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log Services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10264

Explanation: While scanning a log control interval (CI), the beginning log RBA of the CI was not the expected RBA.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009
DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10264 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The expected RBA of the beginning of the CI is placed in SLRFRBA. The address

and length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under Chapter 39, "X'D1.....' codes," on page 871.
- Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.
- Refer to Appendix C (Volume 2) of *DB2 Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log Services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10265

Explanation: While scanning the records and record segments in a log control interval (CI), it was discovered the backward record chain was broken. This condition is the result of an incorrect record length in the log record header of some record in the log CI.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009
DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic

00D10266

record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10265 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the record in error is placed in SLRFRBA. The address and length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under Chapter 39, "X'D1.....' codes," on page 871.
- Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.
- If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro

(DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10266

Explanation: While scanning a log control interval (CI), a unit of recovery ID or LINK RBA in some record was found to be inconsistent with the beginning log RBA of the CI.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009
DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10266 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the log record with the invalid RBA is placed in SLRFRBA. The address and length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under Chapter 39, "X'D1.....' codes," on page 871.
- Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.
- Refer to Appendix C (Volume 2) of *DB2 Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log Services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10267

Explanation: While scanning a log control interval (CI), a middle or last spanned record segment was not the first segment contained in the log CI.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJ005 DSNJW009
DSNJW107

System Action: This reason code can be issued by an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10267 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the record segment in error is placed in SLRFRBA. The address and length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under Chapter 39, "X'D1.....' codes," on page 871.
- Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.
- Refer to Appendix C (Volume 2) of *DB2 Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log Services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10268

Explanation: While scanning a log control interval (CI), a first or middle spanned record segment was not the last segment contained in the log CI.

This reason code is issued by the following CSECTs:

DSNJOFF1 DSNJRS01 DSNJR005 DSNJW009
DSNJW107

System Action: This reason code can be issued by

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an active DB2 subsystem as the log buffers are scanned before they are written to the active log, or by the DB2 stand-alone log services GET processing macro (DSNJSLR) as a CI is retrieved from a user-specified active or archive log data set.

If the reason code is issued by an active DB2 subsystem, then an abend is issued. A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

- If the error was detected by DSNJOFF1, then the archiving of the active log data set is terminated and the faulty active log data set is marked 'stopped'.
- If the error was detected by DSNJR005, then message DSNJ012I is issued and the calling agent is terminated.
- If the error was detected by DSNJW009, then message DSNJ012I is issued and the DB2 subsystem is terminated.
- If the error was detected by DSNJW107, then the DB2 subsystem is terminated.

If this reason code is issued as the result of DB2 stand-alone log services GET processing, no abend is issued by the stand-alone log services CSECT (DSNJRS01), and no information is written to SYS1.LOGREC data set. Rather, in response to the DSNJSLR FUNC=GET call, DB2 places a return code of 4 in register 15 and a reason code of 00D10268 in register 0. Information about the results of the GET request is also returned in the stand-alone log GET Feedback Area (SLRF). The RBA of the record segment in error is placed in SLRFRBA. The address and length of the CI are placed in SLRFFRAD and SLRFRCLL, respectively. The ddname of the data set on which the activity occurred is placed in SLRFDDNM.

For additional details about the stand-alone log services, refer to Appendix C (Volume 2) of *DB2 Administration Guide*.

Operator Response: If the reason code is issued by an active DB2 subsystem, collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: If the reason code is issued by an active DB2 subsystem, obtain the SYS1.LOGREC and the SVC dump from the operator.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

Problem Determination: If the reason code is issued by an active DB2 subsystem:

- RLM standard diagnostic information is provided under Chapter 39, "X'D1.....' codes," on page 871.
- Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.

- Refer to Appendix C (Volume 2) of *DB2 Administration Guide* for failure analysis procedures, with particular emphasis on the use of the DB2 stand-alone log Services.
- Obtain a DSN1LOGP detail report containing the log record(s) associated with the failure.

If the reason code is issued upon return of an invocation of the DB2 stand-alone log services macro (DSNJSLR), then an additional user-written exit or diagnostic routine may have to be written.

00D10269

Explanation: An unrecoverable error was found in one of the buffers, while moving the current log buffer to the static write buffer ('shadow buffer') in preparation for the physical write to the active log. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.

This abend reason code is issued by the following CSECT: DSNJW107

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The subsystem then terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided under Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

00D10301

Explanation: An unsuccessful completion of an OPEN LOG FOR READ has occurred. An open log read cursor already exists for this execution block (EB). Only one log read cursor per EB is permitted.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Scan the read cursor pool for a cursor with the same EB, or examine through

the DB2 trace for the problem. Trace IDs 040301 and 040302 identify OPEN entries while 040303 and 040304 are for CLOSE.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, “X'D1.....’ codes,” on page 871. All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5. Register 6 contains the address of the EB.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 5, 16.

00D10302

Explanation: An unsuccessful completion of an OPEN LOG FOR READ has occurred. A valid scope was not specified.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, “X'D1.....’ codes,” on page 871.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 5, 16.

00D10303

Explanation: An unsuccessful completion of an OPEN LOG FOR READ has occurred. An invalid log RBA range was specified. HIGHRBA is less than LOWRBA.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

and *Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, “X'D1.....’ codes,” on page 871.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 2, 5, 16.

00D10304

Explanation: An unknown function was requested in an open of a log read cursor.

System Action: DB2 issues a return code of 4 and reason code of 00D10304 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10305

Explanation: A peer log read request was made without a peer log read cursor.

System Action: DB2 issues a return code of 4 and reason code of 00D10305 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination:

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10306

Explanation: A request to read merged log records failed.

System Action: DB2 issues a return code of 4 and reason code of 00D10306 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: The requesting function has put this error code out. Check on this function.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10307

Explanation: A log read open in data sharing failed because the RBA values were not increasing or were overlapping.

System Action: DB2 issues a return code of 4 and reason code of 00D10307 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10308

Explanation: A log read open in data sharing failed.

System Action: DB2 issues a return code of 4 and reason code of 00D10308 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10309

Explanation: A peer BSDS open request failed.

System Action: DB2 issues a return code of 4 and reason code of 00D10309 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D1030A

Explanation: A peer log read request was made in non-data sharing.

System Action: DB2 issues a return code of 4 and reason code of 00D1030A to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10310

Explanation: An unsuccessful completion of a SET READ CURSOR RANGE has occurred. The specified log read cursor was not opened by the execution block submitting this request. All input requests must be submitted under the execution block that opened the cursor.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D10311

Explanation: An unsuccessful completion of a SET READ CURSOR RANGE has occurred. An invalid write cursor ID was specified.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, all log write cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBWCPHB. The LMB is pointed to by register 5. Read cursors are in a similar pool at LMBRCPHB.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

00D10312

Explanation: An unsuccessful completion of a SET READ CURSOR RANGE has occurred. An invalid log RBA range was specified. HIGHRBA is lower than LOWRBA.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

00D10322

Explanation: An unsuccessful completion of a LOG READ has occurred. MODE=DIRECT with a record matching the specified TYPE was not found.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D10323

Explanation: An unsuccessful completion of a LOG READ has occurred. MODE=DIRECT with record matching the specified SCOPE is not found.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D10324

Explanation: An unsuccessful completion of a LOG READ has occurred. MODE=DIRECT with record matching the specified CDATA is not found.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D10325

Explanation: An unsuccessful completion of a LOG READ has occurred. The sum of CDATA length value and CDATA offset value is greater than 256.

00D10326 • 00D10329

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D10326

Explanation: An unsuccessful completion of a LOG READ has occurred. The macro invocation specified that no wait was to occur because of a busy archive log data set (ADSWAIT(NO)). The macro invocation also specified that, rather than returning with a condition code (COND(NO)), an abend should be issued by the recovery log manager (RLM) subcomponent. The RLM determined that the record requested was on an archive log data set that was in use.

This abend reason code is issued by the following CSECT: DSNJR008

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D10327

Explanation: An unsuccessful completion of a LOG READ has occurred because of an invalid LOGRBA value. MODE=DIRECT with requested RBA does not match the start of a log record.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and

SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

00D10328

Explanation: A LOG READ completed unsuccessfully, because a MODE request sequence was invalid. A read request specifying a sequential MODE (any MODE except DIRECT) must be preceded by an open log for read, a set read cursor range, or a read with the same MODE parameter value. It is invalid to intermix read requests with different sequential mode values.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D10329

Explanation: A LOG READ completed unsuccessfully, because an I/O error occurred while reading the log data set.

Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Examine SYS1.LOGREC and SVC dump information. Also,

examine any prior messages with a DSNJ prefix from the log buffer reader.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D1032A

Explanation: An unsuccessful completion of a LOG READ has occurred. BSDS does not map the specified RBA into a log data set. Either the BSDS is in error, or the log data set has been deleted.

Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from BSDS or log failures.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Also, obtain a listing of the BSDS by running the print log map (DSNJU004) utility. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 16.

00D1032B

Explanation: A LOG READ completed unsuccessfully because an error occurred while trying to allocate a log data set.

Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.

System Action: An execution unit writes a record to SYS1.LOGREC and might request an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump, if a dump was produced. Notify the system programmer.

System Programmer Response: Examine LOGREC and SVC dump information, if a dump was produced. Also, examine any prior messages with a DSNJ prefix

from recovery log manager allocation processing.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

This abend reason code is issued by the following CSECT: DSNJR003

00D1032C

Explanation: A LOG READ completed unsuccessfully, because an error occurred while opening or closing a log data set.

Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information about recovery from log failures.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Examine LOGREC and SVC dump information. Also, examine prior messages from recovery log manager open/close processing. These messages have a prefix of DSNJ.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D1032D

Explanation: An unsuccessful completion of a LOG READ has occurred. The specified log read cursor was not opened by the execution block submitting this request. All input requests must be submitted under the execution block that opened the cursor.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to the Part 2 of *DB2 Diagnosis Guide*

00D1032E • 00D10331

and Reference for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, all log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D1032E

Explanation: A LOG READ completed unsuccessfully due to an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Examine LOGREC and SVC dump information. LOG READ was passed a bad parameter list. The field which was detected to be in error (RDPLOPT1) is the third byte of the second word traced in the log manager 311 trace entry. The RET field of this trace entry along with the MEPL may be used to determine which module issued the Log Read request. Both pieces of information are useful in isolating the failure.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 5.

00D1032F

Explanation: A LOG READ completed unsuccessfully because the high range RBA provided was not the RBA of a valid log record. This is an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described by DSNDLMB.

00D10330

Explanation: An unsuccessful completion of a Close Log for read has occurred. The specified log read cursor was not opened by the execution block submitting this request. All input requests must be submitted under the execution block that opened the cursor.

This abend reason code is issued by the following CSECT: DSNJR001

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described by DSNDLMB.

00D10331

Explanation: A LOG READ completed unsuccessfully because a LINK RBA did not point to the beginning of a LOG record. This is an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic

information is provided in Chapter 39, “X'D1.....’ codes,” on page 871. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described by DSNDLMB.

00D10332

Explanation: A log read completed unsuccessfully because a link RBA pointed to a log record with a different URID. This is an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: A record is written to SYS1.LOGREC and an SVC DUMP is requested. The requesting execution unit is abnormally terminated.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: While reading the log backwards using the LRHLINK RBAs, a log record was found that contained a different URID. A link read is normally done when processing a rollback or an abort. This abend is issued to prevent a rollback of the wrong transaction. If this occurs during abort processing, the subsystem is brought down. If the abend reoccurs on the subsequent restart of DB2, a conditional restart is necessary to bypass the invalid log record. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* for information on recovering from a log failure during restart and resolving inconsistencies resulting from conditional restart.

Problem Determination: RLM standard diagnostic information is provided in “Recovery Log Manager Reason Codes (X'D1’)”. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described in the DSNDLMB macro.

00D10333

Explanation: A log read failed because an internal error was detected by the Data Manager while examining the log record during recover and deferred restart.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: The execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC and the SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, “X'D1.....’ codes,” on page 871 (X'D1’). In addition, the following diagnostic information is provided in registers:

Register 0: the Data Mgr ERQUAL that identifies the place within CSECT DSNILGRX where the error was detected

Register 2, 3: the RBA of the log record that was being read at the time of the error

Register 7: the address of DSCF selection bLock

Register 8: the address of *ssnmDBM1*'s selection block.

00D10334

Explanation: An unsuccessful completion of a LOG READ occurred because of an invalid LOGRBA value. MODE=SEQUENTIAL DIRECT with the requested RBA does not match the start of a log record.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in “Recovery Log Manager Reason Codes (X'D1’)”.

00D10335

Explanation: An unsuccessful completion of a LOG READ occurred because the log was not being read in ascending order for MODE=SEQUENTIAL DIRECT.

This abend reason code is issued by the following CSECT: DSNJR003

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

and *Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in "Recovery Log Manager Reason Codes (X'D1)".

00D10340

Explanation: An unsuccessful completion of a LOG READ has occurred. This reflects a logic failure internal to the recovery log manager (RLM) subcomponent and is probably caused by a passed parameter list being lost or a previous abend processing a LOG READ request.

This abend reason code is issued by the following CSECT: DSNJR008

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, SVC dump, and console output. Notify the system programmer.

System Programmer Response: Examine LOGREC and SVC dump information for prior abends during LOG READ processing. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D10341

Explanation: A LOG READ completed unsuccessfully because an error was detected during a Forward READ of the log record. This is an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described by DSNDLMB.

00D10342

Explanation: A LOG READ completed unsuccessfully because an error was detected during a backward READ of a log record. This is an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described by DSNDLMB.

00D10343

Explanation: A LOG READ completed unsuccessfully because an error was detected during a READ of a log record due to an invalid CI offset. This is an internal error.

This abend reason code is issued by the following CSECT: DSNJR103

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, register 6 contains the address of the execution block (EB). All log read cursors reside in a recovery log manager storage pool whose header address is in the log manager block (LMB) at LMBRCPHB. The LMB is pointed to by register 5 and described by DSNDLMB.

00D10345

Explanation: A LOG READ completed unsuccessfully because an error was received from a CATALOG LOCATE request for an archive log data set. The requested archive log data set might have been uncataloged or deleted.

System Action: An execution unit might write a record to SYS1.LOGREC and request an SVC dump.

Operator Response: Collect the SYS1.LOGREC and SVC dump, if requested. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump, if requested. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871.

This abend reason code is issued by the following CSECT: DSNJR106

00D10347

Explanation: An attempt to notify a peer to force write the log buffer failed.

System Action: DB2 issues a return code of 4 and reason code of 00D10347 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10348

Explanation: The maximum retry count was exceeded while attempting to read a log RBA.

System Action: The execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: This problem might occur if the user has added an archive log to the BSDS with an incorrect RBA range using Change Log Inventory (DSNJU003) or if an active log dataset has been regressed such that the log dataset does not contain the RBA range that is listed in the BSDS.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10349

Explanation: A deadlock occurred attempting to allocate an archive log tape.

System Action: DB2 issues a return code of 8 and reason code of 00D10349 to the requesting function.

System Programmer Response: Review the DB2 console for the terminated function.

Problem Determination: The requesting function was terminated. There was another function allocating the same archive log tapes. Rerun the terminated function after the present function no longer has the archive log tapes allocated.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10350

Explanation: A lock or unlock failed in an attempt to allocate an archive log tape.

System Action: An execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and then terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, an SVC dump, and console output. Notify the system programmer.

System Programmer Response: This is an internal DB2 error, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10401

Explanation: A BSDS read was requested and the record was not found.

System Action: DB2 returns a return code of 4 and reason code of 00D10401 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10402

Explanation: A BSDS read was requested and the input area was too small.

System Action: DB2 returns a return code of 8 and reason code of 00D10402 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in

00D10403 • 00D10411

DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10403

Explanation: A BSDS update was requested and the record was not found.

System Action: DB2 returns a return code of 4 and reason code of 00D10403 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10404

Explanation: A BSDS insert was requested and the record already exists.

System Action: DB2 returns a return code of 4 and reason code of 00D10404 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10405

Explanation: A BSDS delete was requested and the record does not exist.

System Action: DB2 returns a return code of 4 and reason code of 00D10405 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10406

Explanation: The bootstrap data set access service received a request with an invalid function code.

This abend reason code is issued by the following CSECT: DSNJB001

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect all relevant diagnostic

materials, including SYS1.LOGREC, SVC dump, and console output. Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 16.

00D10410

Explanation: An unsuccessful completion of a READ BSDS RECORD has occurred. An error has been returned from VSAM.

This abend reason code is issued by the following CSECT: DSNJB002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Use the SYS1.LOGREC and SVC dump to determine the cause of the problem.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, the VSAM RPL fields RPLERRCD and RPLERREG are stored in the BSDS request parameter list. The address of the BSDS request parameter list is stored in the BSDS request element (BSDSRQEL) field (located at offset X'8' in the bootstrap data set block).

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 16.

00D10411

Explanation: An unsuccessful completion of a WRITE UPDATE BSDS RECORD has occurred. An error has been returned from VSAM.

This abend reason code is issued by the following CSECT: DSNJB002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic

information is provided in Chapter 39, “X'D1.....’ codes,” on page 871. In addition, the VSAM RPL fields RPLERRCD and RPLERREG are stored in the BSDS request parameter list. The address of the BSDS request parameter list is stored in the BSDS request element (BSDSRQEL) field (located at offset 8 in the bootstrap data set block).

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 2, 5, 16.

00D10412

Explanation: An unsuccessful completion of a WRITE INSERT BSDS RECORD has occurred. An error has been returned from VSAM.

This abend reason code is issued by the following CSECT: DSNJB002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, “X'D1.....’ codes,” on page 871. In addition, the VSAM RPL fields RPLERRCD and RPLERREG are stored in the BSDS request parameter list. The address of the BSDS request parameter list is stored in the BSDS request element (BSDSRQEL) field (located at offset 8 in the bootstrap data set block).

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 2, 5, 16.

00D10413

Explanation: An unsuccessful completion of a DELETE BSDS RECORD has occurred. An error has been returned from VSAM.

This abend reason code is issued by the following CSECT: DSNJB002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, “X'D1.....’ codes,” on page 871. In addition, the VSAM RPL fields RPLERRCD and RPLERREG are stored in the BSDS request parameter list. The address of the BSDS request parameter list is stored in the BSDS request element (BSDSRQEL) field (located at offset 8 in the bootstrap data set block).

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 2, 5, 16.

00D10414

Explanation: DB2 cannot dynamically allocate a copy of the requested bootstrap data set (BSDS).

System Action: The system places the BSDS in disabled mode.

User Response: Notify the system programmer.

System Programmer Response: Restore the BSDS data set (or data sets) and restart the DB2 subsystem associated with the BSDS.

Problem Determination: This reason code is issued by the following CSECT: DSNJB002

00D10415

Explanation: The bootstrap data set (BSDS) is not a valid BSDS for the data sharing group.

System Action: The system places the BSDS in disabled mode.

User Response: Notify the system programmer.

System Programmer Response: Restore the BSDS data set (or data sets) and restart the DB2 subsystem associated with the BSDS.

Problem Determination: This abend reason code is issued by the following CSECT: DSNJB002

00D10416

Explanation: A peer BSDS process was requested in non-data sharing.

System Action: DB2 issues a return code of 8 and reason code of 00D10416 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: Peer BSDS requests cannot occur in non-data sharing.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10417

Explanation: A peer BSDS process was requested for a host BSDS.

System Action: DB2 issues a return code of 8 and reason code of 00D10417 to the requesting function.

System Programmer Response: Review the DB2 console for related errors.

Problem Determination: Peer BSDS requests cannot be processed for the host BSDS.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10500

Explanation: The recovery log manager's dynamic allocation function has been passed a bad function code (LRB4FUNC in control block LRB4).

This abend reason code is issued by the following CSECT: DSNJDS01

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, trace entry 501 provides the return address to the module that passed the LRB4 with the undefined function code. It also provides the address of the LRB4. This address is also in register 7 at the time of the abend.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00D10501

Explanation: The recovery log manager's common access method services has been passed a bad function code (DSPLFUNC in control block DSPL).

This abend reason code is issued by the following CSECT: DSNJDS05

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause

of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. The address of the DSPL is provided in register 3, and the invalid function in register 4.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00D10700

Explanation: An error completion code was returned by SETLOCK OBTAIN.

This abend reason code is issued by the following CSECT: DSNJM002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, register 0 contains the return code from SETLOCK OBTAIN.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00D10701

Explanation: An error completion code was returned by SETLOCK RELEASE.

This abend reason code is issued by the following CSECT: DSNJM002

System Action: An execution unit writes a record to SYS1.LOGREC and requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump. Determine the cause of the problem from the diagnostic information in the Problem Determination section of this message.

Problem Determination: RLM standard diagnostic information is provided in Chapter 39, "X'D1.....' codes," on page 871. In addition, register 0 contains the return code from SETLOCK RELEASE.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00D10800

Explanation: The log manager command processor (DSNJC001) was entered with an invalid Tokenized Command Segment (TCS).

This reason code is issued by the following CSECT: DSNJC001

System Action: A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested. The requesting execution unit is abended.

Operator Response: Collect the SYS1.LOGREC and SVC dump, and notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump from the operator. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RLM standard diagnostic information is provided under Chapter 39, "XD1....." codes," on page 871.

General register 1 contains the address of the TCS as passed to log manager. The character string 'TCS' should appear at the address provided in R1, plus 4. The address of the GPC Pool Header Block (PHB) is provided in general register 2. The value X'0036' should appear at the address provided in R2. If these two items are not present, then the DSNJC001 CSECT was invoked in error by an execution unit.

00D10901

Explanation: DB2 failed to locate a data sharing member in the SCA.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, an SVC dump, and console output.

Problem Determination: Review the DB2 system console for possible DSN7xxxx messages that could relate to this problem.

See the DB2 system console for message DSNJ700I that is issued with this DB2 condition code.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10902

Explanation: A dynamic allocation of a peer's BSDS failed.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC,

requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, an SVC dump, and console output of peer and host.

Problem Determination: Review the DB2 system console for possible errors relating the peer's BSDS on both the host and peer DB2 system.

See the DB2 system console for messages DSNJ103I and DSNJ700I that are issued with this DB2 condition code.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10903

Explanation: An open of a peer BSDS failed.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, an SVC dump, and console output. Notify the system programmer.

Problem Determination: Review the DB2 system console for messages DSNJ100I and DSNJ700I that are issued with this DB2 condition code.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10904

Explanation: There was a VSAM MRKBFR error for a peer BSDS.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, an SVC dump, and console output.

Problem Determination: The VSAM MRKBFR error is placed in LRB1XRC.

See the DB2 system console for message DSNJ700I that is issued with this DB2 condition code.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10905

Explanation: There is a mismatch between the two BSDS timestamps of a peer.

System Action: If this was an unconditional request,

an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Problem Determination: There is a mismatch between the two BSDS system timestamps of a peer, the BSDS change log inventory (DSNJU003) timestamps of a peer, or both. The peer log environment might have changed. This must be resolved at the peer DB2 subsystem by determining which BSDS is in error and recovering that BSDS.

See the DB2 system console for message DSNJ7001 that is issued with this DB2 condition code.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10906

Explanation: The change log inventory (DSNJU003) timestamp does not match the system timestamp in the peer BSDS.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Problem Determination: A change log inventory (DSNJU003) job was executed against the peer BSDS after the last peer DB2 subsystem restart. The peer log environment might have changed. Restart the peer DB2 subsystem to reset this condition.

See the DB2 system console for message DSNJ7001 that is issued with this DB2 condition code.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10907

Explanation: DB2 could not locate a peer's active log data set in the peer's BSDS.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials including SYS1.LOGREC, an SVC dump, and console output.

Problem Determination: Run a print log map (DSNJU004) job against the peer's BSDS to compare BSDS active log entries with the existing peer's log data sets. There is probably a mismatch between them.

See the DB2 system console for message DSNJ7001 that is issued with this DB2 condition code.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10908

Explanation: An open of a peer's active log failed.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, an SVC dump, and console output of peer and host.

Problem Determination: Review the DB2 system console for possible errors relating the peer's active log on both the host and peer DB2 system.

The VSAM CONNECT return code is in LRB1XRC if an SVC dump was taken.

See the DB2 system console for message DSNJ7001 that is issued with this DB2 condition code.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10909

Explanation: There was no active BSDS found for the peer DB2 subsystem.

System Action: If this was an unconditional request, an execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, SVC dump, and console output of peer and host.

Problem Determination: Review the DB2 system console for possible errors relating the peer's BSDSs on both the host and peer DB2 system.

See the DB2 system console for message DSNJ7001 that is issued with this DB2 condition code.

The peer BSDSs have been placed in inactive mode. There might have been an error against this peer's BSDSs and a recovery is needed.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10910

Explanation: A BLDVRP/DLVRP macro failed for the BSDS buffer.

System Action: An execution unit writes a record to SYS1.LOGREC, requests an SVC dump, and then terminates.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, SVC dump, and console output.

Problem Determination: Review the DB2 system

console for possible errors relating to the BSDS.

A BLDVRP/DLVRP macro for a VSAM shared resource pool failed for the BSDS. General register 2 will contain a value of 1 for a BLDVRP macro or a value of 2 for a DLVRP macro. The macro return code is contained in general register 3. See the appropriate VSAM publication for advanced VSAM applications.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D10916

Explanation: DB2 received an error while attempting to read shared communications area (SCA) information from the coupling facility.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested. The subsystem will be terminated with the same reason code.

System Programmer Response: Correct the problem with the coupling facility, and restart DB2.

Problem Determination: Review the DB2 system console for possible DSN7xxxx and DSNJxxxx messages that might relate to this problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D10917

Explanation: DB2 received an error while attempting to write shared communications area (SCA) information to the coupling facility.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested. The subsystem will be terminated with the same reason code.

System Programmer Response: Correct the problem with the coupling facility, and restart DB2.

Problem Determination: Review the DB2 system console for possible DSN7xxxx and DSNJxxxx messages that might relate to this problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

Chapter 40. X'D3.....' codes

00D30000

Explanation: The operator canceled the allied agent at the requesting location and a dump was requested, or the agent abended with a reason code that indicated a possible communication problem. In either case, the database access agent at this location abended to take a dump to assist in problem determination.

This abend reason code is issued by the following CSECT: DSNLABRT

System Action: The agent terminates.

Operator Response: Notify the system programmer.

System Programmer Response: The information collected as a result of this abend is related to information collected at the requesting location. Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Contact the system programmer at the requesting location (the location name can be determined from the dump header) to coordinate further action.

Problem Determination: This abend was initiated in order to save diagnostic information that might be useful in problem determination.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D30001

Explanation: The DPS RALE was not initialized. The DSNLSPRR was invoked with the DPSB defined as the functional recovery routine (FRR) anchor. The DPSB is created after the DPS RALE is initialized.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30002

Explanation: The distributed data facility (DDF) standard ESTAE and FRR recovery routines detected a bad recovery element. This is a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30003

Explanation: While establishing an ESTAE functional recovery, DB2 detected a failure.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30004

Explanation: A database access agent received an invalid message. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

00D30005 • 00D3000A

DSNLABRT DSNLPREP DSNLRUSE DSNLTMR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30005

Explanation: DB2 detected a failure while retrying DB2 recovery.

This abend reason code is issued by the following CSECT: DSNLFRCV

System Action: DB2 abends after it writes a SYS1.LOGREC record and requests a SVC dump.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A distributed data facility (DDF) module retried recovery after an abend, but invalidly returned control to the DDF functional recovery routine (DSNLFRCV) that issued the abend.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D30008

Explanation: The distributed transaction manager (DTM) could not allocate a RALE for the distributed data facility (DDF). This is a DB2 internal error.

This abend reason code is issued by the following CSECTs: DSNLARALDSNLTACCDNSLTMRA

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30009

Explanation: During allocation of a database access agent, simultaneous use of an APLE was attempted. An APLE can be used once during allocation of a database access agent. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLTMRA

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3000A

Explanation: DB2 invoked the DSNLTDSC macro or a function of the distributed transaction manager (DTM). The required function could not be performed because the DPSB control block does not exist. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLBABR DSNLCMT1 DSNLDALB DSNLTGBK
DSNLTMIG DSNLTRNA

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The execution unit abnormally terminates.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 detects this error when the module that abnormally terminated is invoked and determines that the existence of the DDF agent local anchor block (DPSB) is not indicated by the DDF RALE or is not indicated by the ACE.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5

00D3000B

Explanation: A function of the distributed transaction manager (DTM) was invoked and attempted to establish a functional recovery environment. The functional recovery element (FRE) that was created was not the first one on the chain of FREs anchored in the DPSB. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLCMT1.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3000C

Explanation: The location name received in a response message from a responding site disagrees with the location name to which the request message was sent. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLCMT1

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3000D

Explanation: A request using application-directed access starting at site 'A' referenced an object at site 'B' that is stored at site 'A'.

This abend reason code is issued by the following CSECT: DSNLTMIG

System Action: The application statement was not processed.

User Response: Recode the application to remove the alias reference at the remote server that resolves to an object stored at the local DB2. Objects stored at the local site must be referenced using a local name.

Problem Determination: If necessary, consult with the data base administrators at the local site and the remote server location. Inspect the remote SYSIBM.SYSTABLES catalog table to determine the object at this location being referenced in a circular manner.

00D3000E

Explanation: The DSNLFTMB macro was invoked to determine whether an update request was sent to a specified location, but the transaction has not yet been migrated to that location. This is a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem

determination," on page 1353: 56, 57.

00D3000F

Explanation: A DB2 resource manager attempted to add a duplicate entry to the list of resource managers. This list contains the names of resource managers that can participate in the allocation of a database access agent at a remote site. This is a DB2 error.

This abend reason code is issued by the following CSECT: DSNLADRA

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The module that incorrectly invoked this function also invoked DSNLADRA.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D30010

Explanation: A DB2 resource manager attempted to delete a resource manager that is not given in the list of resource managers that participate in the allocation of a database access agent at a remote site. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLADRA

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This module which incorrectly invoked this function also invoked DSNLADRA.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D30011

Explanation: Only a certain number of resource managers can participate in the allocation of a database access agent at a remote site. The maximum has been attained and cannot be extended. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLADRA

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D30012

Explanation: More than one resource manager attempted to reserve the same RALE for use in the allocation of a database access agent at a remote site. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLTMIG

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The RALE was previously reserved by another resource manager and is not available.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D30013

Explanation: The facility section (DSN6FAC) in the DB2 initialization parameter module does not exist.

This abend reason code is issued by the following CSECT: DSNLSSRW

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The distributed data facility is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an installation error. Obtain a listing of the DSNZPARM module used.

Problem Determination: Ensure that DSN6FAC was installed correctly.

00D30014

Explanation: The distributed transaction manager (DTM) detected an internal error. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLATR	DSNLB	DSNLC	DSNLE
DSNLDP	DSNLE	DSNLI	DSNLP
DSNLS	DSNLS	DSNLS	DSNLT
DSNLT	DSNL	DSNLT	DSNLT
DSNLT	DSNLT	DSNLT	DSNLT

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30015

Explanation: The facility section (DSN6FAC) in the DB2 initialization parameter module is invalid.

This abend reason code is issued by the following CSECT: DSNLSSRW

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The distributed data facility (DDF) is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an installation error. Obtain a listing of the DSNZPARM module used.

Problem Determination: Ensure that DSN6FAC was installed correctly.

00D30016

Explanation: An allied agent received an invalid response. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLCMT1

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30018

Explanation: An agent exists at the site at which the abend occurred, but an agent that should exist at another site does not exist at that site. This is probably a DB2 internal error.

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The distributed data facility (DDF) error monitor, which terminates the agent that is waiting for some action to be taken by the nonexistent agent, detects this error. The module that was waiting for the action of the nonexistent agent is the module that issued the abend.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D30019

Explanation: The distributed data facility (DDF) error monitor detected an error at another site which caused the agent at this site to be canceled. This is probably a DB2 internal error.

System Action: DB2 writes a SYS1.LOGREC record

00D3001A • 00D3001C

and requests a SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The DDF error monitor, which terminates the agent because of an error detected at another site to which the agent is connected and for which the agent is waiting, detected this error. The module that was suspended to wait for the action to be taken at the other site is the module that issued the abend.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D3001A

Explanation: A CANCEL THREAD or CANCEL DDF THREAD command naming a distributed thread caused the thread to be terminated. A dump is provided for diagnostic purposes as a result of the CANCEL command DUMP keyword.

System Action: DB2 writes a SYS1.LOGREC record and requests an SVC dump. The execution unit abends. If the canceled distributed thread is an allied thread, DB2 requests the cancelation of each associated database access thread at each of the server sites (refer to the explanation for 00D30000).

Operator Response: Notify the system programmer.

System Programmer Response: The command might have been used to terminate a thread that was in a state where no processing was occurring and the thread could not continue.

If you suspect an internal DB2 error, obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353 1, 2, 5.

The module that was suspended while waiting for some action to be taken is the module that issued the abend.

00D3001B

Explanation: The database access request from a remote site failed because the SYSIBM.USERNAMES table did not contain an inbound row, the TYPE column specified as an 'I' describing what DB2 authorization ID to be used for the remote primary authorization ID.

When the USERNAMES column in SYSIBM.LUNAMES specifies 'I' or 'B', requiring inbound name translation, the SYSIBM.USERNAMES table must contain entries describing which DB2 authorization IDs are to be used for each remote authorization ID from the LU.

This abend reason code is issued by the following CSECTs: DSNLTACC, DSNLTMRA.

System Action: The DSNL030I message is issued at the server. The database access agent is not allocated.

Operator Response: Notify the communications database administrator

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the DB2 authorization IDs to be used for each possible remote authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3001C

Explanation: The database access request from a remote site failed because the SYSIBM.USERNAMES table did not contain an inbound row, the TYPE column specified as an 'I' describing what DB2 authorization ID to be used for the remote new user primary authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'I' or 'B' requiring inbound name translation, the SYSIBM.USERNAMES table must contain entries describing which DB2 authorization IDs are to be used for each remote authorization ID from the LU.

This abend reason code is issued by the following CSECTs: DSNLRUSE, DSNLTEXC.

System Action: The DSNL030I message is issued at the server. The database access agent is not allocated.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from the DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the DB2 authorization IDs to be used for each possible remote authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3001D

Explanation: The database access request from a remote site failed because the SYSIBM.USERNAMES table did not contain an inbound row, the TYPE column specified as an 'I' describing what DB2 authorization ID to be used for the remote plan owner authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'I' or 'B', requiring inbound name translation, the SYSIBM.USERNAMES table must contain entries describing which DB2 authorization IDs are to be used for each remote authorization ID from the LU.

This reason code is issued by the following CSECT: DSNLTMRA

System Action: The DSNL030I message is issued at the server. The database access agent is not allocated.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from the DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the DB2 authorization IDs to be used for each possible remote authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3001E

Explanation: The SYSTEM PARAMETER section (DSN6SYSP) in the DB2 installation parameter module does not exist.

This abend reason code is issued by the following CSECT: DSNLTMIN

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DDF is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an installation error. Obtain a listing of the DSNZPARM module used.

Problem Determination: Ensure that DSN6SYSP was installed correctly.

00D3001F

Explanation: ACCRDBRM received from the remote server indicates incompatible server.

This abend reason code is issued by the following CSECT: DSNLTAC1

System Action: The TYPDEFNAM or TYPDEFOVR values returned from the remote server in the DDM

ACCRDBRM reply require data type and/or code page translations that cannot be supported by the local DB2. The local DB2 has disconnected the conversation with the remote server. DB2 requests neither a SVC dump nor a SYS1.LOGREC record.

User Response: Notify the system programmer. Invoke the application after the problem has been corrected.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. Notify the system programmer at the remote location that the remote server may not be usable.

Problem Determination: Determine the server being accessed by examining the SQLCODE -30041 message text. Refer also to the DDM documentation of the ACCRDB command and the ACCRDBRM reply message.

00D30020

Explanation: The processing of the CONNECT statement at a remote server has failed. This is because acceptable CONNECT information was not conveyed in the distributed relational database architecture (DRDA) EXCSAT command sent by the local DB2 to the remote server.

This reason code is issued by the following CSECT: DSNLTEXC

System Action: The remote server database access agent (DBAA) sends a DRDA reply message (for example, MGRLVLRM) to the local DB2 which indicates the specific nature of the problem. The above reason code is sent in the server diagnosis area of the reply message. The DBAA awaits further DRDA commands from the local DB2.

User Response: The SQLCA returned in response to the CONNECT statement indicates what DRDA reply message was sent by the remote server. The user should contact the local DB2 system administrator with this information.

Operator Response: Operator will not detect this problem.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This represents a DRDA configuration mismatch between the local DB2 and the remote server. The precise mismatch is determined from the reply message sent from the remote server to the local DB2. The reply message may be determined by examining the SQLCODE and the SQLCA tokens returned for the CONNECT statement.

The remote server and local DB2 system administrators

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should consult together to determine if this is a system configuration error, or if an internal error exists at either the local DB2 or remote server.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

Collect the following local DB2 diagnostic items:

- Application source code and runtime listing.
- Relevant error and system logs spanning the time of the failure.

00D30021

Explanation: The processing of the CONNECT statement at a DB2 remote server has failed. This is because acceptable CONNECT information was not conveyed in the distributed relational database architecture (DRDA) ACCRDB command sent by the local DB2 to the remote server.

This reason code is issued by the following CSECT: DSNLTACC

System Action: The remote server database access agent (DBAA) sends a DRDA reply message (for example, VALNSPRM) to the local DB2 which indicates the specific nature of the problem. The above reason code is sent in the server diagnosis area of the reply message. The DBAA awaits further DRDA commands from the local DB2.

User Response: The SQLCA returned in response to the CONNECT statement indicates what DRDA reply message was sent by the remote server. The user should contact the local DB2 system administrator with this information.

Operator Response: Operator will not detect this problem.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This represents a DRDA configuration mismatch between the local DB2 and the remote server. The precise mismatch is determined from the reply message sent from the DB2 remote server to the local DB2. The reply message may be determined by examining the SQLCODE and the SQLCA tokens returned for the CONNECT statement. It could indicate any one of the following problems (but is not limited to these):

- The EXCSAT command was not successfully processed prior to receipt of the ACCRDB command.
- The TYPDEFNAM parameter (specifies local DB2 data types) in the ACCRDB command is not supported.
- The TYPDEFOVR parameter (specifies local DB2 CCSIDs) in the ACCRDB command is not supported.

- The local DB2 product is not recognized/supported by the remote server.

The system administrators for the two locations should consult together to determine if this is a system configuration error or if an internal error exists at either location.

Collect the following diagnostic items at the remote server:

- Console output from the system on which the job was run and a listing of SYSLOG data set for the period of time spanning the failure.
- Listing of SYS1.LOGREC data set obtained by executing IFCEREP1.
- The system CCSIDs.

Collect the following diagnostic items at the local DB2:

- Application source code and runtime listing.
- Relevant error and system logs spanning the time of the failure.
- The system CCSIDs.

00D30022

Explanation: The processing of the CONNECT statement at the remote server has failed and the local DB2 Data Base Access Agent (DBAA) has been abended. This is because authorization checking has failed at the remote server.

This abend reason code is issued by the following CSECTS: DSNLTACC DSNLTTEXC

System Action: The conversation with the local DB2 is terminated by the remote server with an LU6.2 SNA sense code. The DBAA is abended. A DSNL030I message is written to the MVS console at the remote server, and an alert is generated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Either the user does not have the proper authority to execute at the remote server, or there is a security configuration mismatch between the local DB2 and the remote server. Examine the DSNL030I message or the alert for a more specific reason code describing the failure. Consult with the two system administrators if necessary to fix the problem. No dump is generated for this abend.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00D3002D

Explanation: The remote server was not successfully connected. The SYSIBM.USERNAMES table did not contain an outbound row, the TYPE column specified as an 'O' describing the remote authorization identifier to be used for the plan owner DB2 authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'O' or 'B' requiring outbound name translation, the SYSIBM.USERNAMES table must contain entries describing the remote authorization IDs to be used for each DB2 authorization ID communicating with the LU.

This abend reason code is issued by the following CSECTs: DSNLTXAC DSNLTMIG

System Action: A resource unavailable is returned to the application. The request is not sent to the remote site.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the remote authorization ID to be used for each possible DB2 authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3002E

Explanation: No resync list entry exists during resynchronization when one is expected to exist. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLTRLA DSNLTRLO DSNLTRPA DSNLTRPN
DSNLTRRH

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3002F

Explanation: An unrecognized function request was detected during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLTRD DSNLTRE DSNLTRLS DSNLTRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30030

Explanation: This site is not considered a coordinator or participant during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLTRE DSNLTRLO DSNLTRPV DSNLTRVS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference*

for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30031

Explanation: An unknown 2-phase COMMIT protocol is being used during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLTRLO DSNLTRVS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30032

Explanation: This site is not considered either an initiator or recipient of resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLTRCN DSNLTRLA DSNLTRLN DSNLTRPA
DSNLTRPN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30033

Explanation: This site is invalidly an initiator of resynchronization. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLTRPN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30034

Explanation: An INDOUBT resync list entry does not have the correct associated structures during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLTRPA DSNLTRPN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30035

Explanation: A resolved unit of work still has internal structures associated with it during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLTRPA DSNLTRPN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30036

Explanation: Either the coordinator or participant has an invalid status during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLTRCA DSNLTRCN DSNLTRLA DSNLTRLN
DSNLTRLO DSNLTRPA DSNLTRPN DSNLTRRA

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30037

Explanation: The resync list latch is erroneously still being held during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLTRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30038

Explanation: The storage calculation for the amount of storage needed for -DISPLAY THREAD is invalid. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLTDTI

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D30039

Explanation: A resync conversation is invalid. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLTRVR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3003A

Explanation: An error occurred during resynchronization. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLTRCA DSNLTRCN DSNLTRE DSNLTRLA
DSNLTRLN DSNLTRPA DSNLTRPN DSNLTRPV
DSNLTRRA

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the sites to which the abending agent was connected by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3003B

Explanation: A distributed thread was canceled because the timeout value in the DB2 startup parameters module (usually DSNZPARM) was exceeded. This value is specified by the IDLE THREAD TIMEOUT value in the DSNTIPR installation panel or the IDTHTOIN value in the DSN6FAC macro, which is used to build the DB2 start up parameters module.

System Action: The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: The server thread was holding DB2 resources and the requester application did not make a request to the DB2 server thread for an extended period of time. The server thread is terminated in order to releases resources that might affect other threads.

This usually occurs for one of these reasons:

- The ACTIVE thread option was specified in the DDF THREADS field of the DSNTIPR installation panel, and a requester application or its user did not make a request to the DB2 server for an extended period. This can happen, for example, during a lengthy end user absence. As a result, the server thread becomes susceptible to being canceled because of the timeout value.

Determine why the requester application has not made a request to the DB2 server in the specified time. If the design or use of the application requires additional time, increase the IDLE THREAD TIMEOUT value or set it to zero to deactivate the function.
- The INACTIVE thread option was specified in the DDF THREADS field of the DSNTIPR installation panel, and a requester application or its user:
 - Failed to commit before an extended dormant period (such as end user absence), or
 - Committed before an extended dormant period (such as end user absence), but database resources are still held because of other existing conditions.

As a result, the server thread cannot be moved to the inactive state and becomes susceptible to being canceled because of the timeout value.

Determine why the server thread was not moved to the inactive state. For information about active and inactive threads, see the description of the DDF THREADS option of the DSNTIPR installation panel in "Planning and Installing DB2" in Part 2 of *DB2 Installation Guide*. If the design or use of the application requires additional time, increase the IDLE THREAD TIMEOUT value or set it to zero to deactivate the function.

Problem Determination: This abend reason code is issued by the following CSECT: DSNLBABR

00D300F1

Explanation: The DSNLTOKS macro was invoked to extract error information from the DTMF block using the CHECK_SQLCODE keyword and the DTMF block was either uninitialized or contained an SQL return code that was not negative. This is a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The execution unit is abnormally terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This name of the module that invoked the function given as the abending module name. This is not the module in error. An earlier failing module neglected to report error information in the DTMF block.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D300F2

Explanation: EXCSATRD reply received from a remote server indicates an incompatible server.

This abend reason code is issued by the following CSECT: DSNLTEX1

System Action: The manager levels returned from the local DB2 in the DDM EXCSATRD reply were too low for the local DB2 to support. The local DB2 has disconnected the conversation with the remote server. DB2 requests neither an SVC dump nor a SYS1.LOGREC record written.

User Response: Notify the system programmer. Invoke the application after the problem has been corrected.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. Notify the system programmer at the remote location that the remote server is not usable.

Problem Determination: Determine the server being accessed by inspecting the SQLCODE -30041 message text. Refer to the DDM documentation of the EXCSAT command.

00D300F3

Explanation: The remote server was not successfully connected. The SYSIBM.USERNAMES table did not contain an outbound row, the TYPE column specified as an 'O' describing the remote authorization identifier to be used for the new user primary DB2 authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'O' or 'B' requiring outbound name translation, the SYSIBM.USERNAMES table must contain entries describing the remote authorization IDs to be used for each DB2 authorization ID communicating with the LU.

This abend reason code is issued by the following CSECTs: DSNLTMIG DSNLTXAC

System Action: A resource unavailable is returned to the application. The request is not sent to the remote site.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the remote authorization ID to be used for each possible DB2 authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D300F4

Explanation: A DRDA protocol error occurred. Either a reply chain is broken but there is no DDM reply with a high enough severity to break the chain, or a message chain is unbroken in spite of a high severity code, or a conversation expected to be available has been terminated. The problem, though detected by DB2, is believed to have originated at the remote server. The server might not be a DB2 subsystem.

This abend reason code is issued by the following CSECTs:

DSNLBABR DSNLCMT1 DSNLTAC1 DSNLTEX1
DSNLTXAC

System Action: This reason code is returned to the application. A request message has likely been sent to the remote site but the outcome is uncertain. A DSNL0311 message may have been written to the console. Refer to the description of this message for more information. If this reason code is returned for an SQL 'COMMIT' statement, determine if manual recovery of the unit of work is necessary.

Operator Response: Notify the operator or systems programmer for the remote server.

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System Programmer Response: Determine the product type of the server. The DISPLAY THREAD command may be used. Refer to the server products' diagnostic recommendations. If the server DBMS is DB2, contact your IBM representative to report the problem and open an APAR.

Problem Determination: The problem originated with the remote server. Follow the diagnostic recommendations published for the server DBMS product, which might not be DB2.

00D300F5

Explanation: DDM command chaining is in use.

This reason code is issued by the following CSECT: DSNLTXAC

System Action: The DTM module returns to its invoker with a return code = 4.

00D300F6

Explanation: A valid but unexpected DDM reply was received from a remote server during a connect, commit, or abort operation. For a connect, the expected DDM reply is EXCSATRD (for EXCSAT command) or ACCRDBRM (for ACCRDB command). For a commit or abort, the expected DDM reply is ENDUOWRM. (The DDM command for a commit is RDBCMM. For a rollback, it is RDBRLLBCK).

This reason code is issued by the following CSECTS:

DSNLBABR DSNLCMT1 DSNLTAC1 DSNLTEX1

System Action: The local DB2 tried to access a remote server and the server replied with an unexpected DDM answer. The remote server may have suffered permanent damage. The local DB2 may or may not subsequently disconnect the conversation to the server. This is an internal-only DDF reason code. The local DB2 requests neither a SVC dump nor a SYS1.LOGREC record.

User Response: Contact the system programmer

System Programmer Response: If the SQLCA is available, examine all fields in the SQLCA. Using this information, try to determine what DDM reply was received. Contact the system programmer at the server site with this information. This is probably a programming error at the server database system, although it may be a DB2 error. The server database system may have recorded diagnostic information for the problem. If this is a DB2 error, write an APAR.

Problem Determination: Examine the SQL return code in the SQLCA. It should give further indication of the real cause.

00D300F7

Explanation: A DDM reply message was too big to fit in the DTM reply buffer.

This abend reason code is issued by the following CSECTS:

DSNLBABR DSNLCMT1 DSNLTAC1 DSNLTEX1
DSNLTXAC

System Action: The requesting allied agent is terminated. A SYS1.LOGREC record is written and an SVC dump is requested at the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This error should never occur. Write an APAR.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00D300F8

Explanation: An attempt was made to access data at a remote location that has been started in restricted access mode. When a DB2 system is started in restricted access mode, no remote inbound or outbound access is allowed.

System Action: Remote access is not allowed.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the remote location where the remote data access was attempted. Retry the request when the remote location and/or the local DB2 has been restarted in full access mode.

00D300F9

Explanation: The DB2 server was unable to allocate a database access agent since the maximum number allowed was zero (ZPARM MAXDBAT value was zero).

This abend reason code is issued by the following CSECT: DSNLAGNT

System Action: The DB2 server terminates the conversation with a 084B6031 SNA sense code for application-directed access and a 00D300F9 DB2 code for system-directed access. A DSNL030I message containing this reason code is written to the MVS operator console at the DB2 server site.

System Programmer Response: At the server, currently no data base access agents are allowed because the MAXDBAT value in the ZPARM is zero. If

access to this site from a remote site is desirable, change the MAXDBAT parameter in ZPARM to the maximum number of database access agents desired. Restart DB2 at the server. Notify the user to rerun the application.

00D300FA

Explanation: You attempted a COMMIT statement for a plan that specified ISOLATION (RR) and update operations were performed either at the local site or at a remote site. The COMMIT operation could not be performed because the COMMIT request could not be transmitted to a remote site where Repeatable Read operations had been performed.

This abend reason code is issued by the following CSECT: DSNLCMT1

System Action: All update operations were backed out.

System Programmer Response: Determine why the COMMIT failed and retry the application.

00D300FB

Explanation: A resource was not available during database access agent allocation at a remote site.

This abend reason code is issued by the following CSECTs: DSNLTACC DSNLTMRA

System Action: The allocation of the database access agent was unsuccessful. A 'resource not available' code is returned to the user. DB2 requests neither a SVC dump nor a SYS1.LOGREC record.

User Response: Notify the system programmer. Invoke the application after the problem has been corrected.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of the *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Determine the name of the resource being allocated and correct the problem.

00D300FC

Explanation: You attempted to allocate a resource at a remote site using an invalid name.

This abend reason code is issued by the following CSECTs: DSNLTACC DSNLTMRA

System Action: The allocation of the database access agent was unsuccessful. A 'resource not available' code is returned to the user. DB2 requests neither a SVC dump nor a SYS1.LOGREC record. This reason code is returned only for system-directed access (DSNLTMRA).

User Response: Notify the system programmer.

Invoke the application after the problem has been corrected.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of the *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Determine the resource being allocated and correct the problem.

00D300FD

Explanation: An attempt was made to disconnect a connection with a specified location, but the transaction has not yet been connected to that location. This is a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The execution unit is abnormally terminated.

Problem Determination: Obtain a copy of SYS1.LOGREC and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO). Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The name of the module that invoked the function incorrectly is given as the abending module name.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D300FE

Explanation: You executed a COMMIT statement and update operations were performed at a remote site. The success of the COMMIT operation could not be determined because a failure occurred at the remote site or in the communication link with the remote site after the request to commit the operation had been transmitted.

This abend reason code is issued by the following CSECT: DSNLCMT1

System Action: The remote updates have been committed or backed out, depending on when the error occurred.

User Response: After communication has been reestablished with the remote site, use SQL to query the updated data to determine whether the updates were committed. If the updates were not committed, rerun the application and perform the updates again.

00D300FF

Explanation: You attempted a COMMIT statement and update operations were performed at a remote site. The attempt failed.

00D30100 • 00D30103

Thisabend reason code is issued by the following CSECT: DSNLCMT1

System Action: The updates at the remote site have been backed out.

User Response: Rerun the application.

Problem Determination: Determine why the COMMIT failed and retry the application.

00D30100

Explanation: A COMMIT statement was chained to a set of commands sent to an remote server. The remote server stopped processing the chained commands before it reached the COMMIT. COMMIT was NOT performed.

This reason code is issued by the following CSECT: DSNLCMT1

System Action: Any updates performed within the current unit of Work have been backed out.

User Response: Notify the system programmer of the failure.

After the problem causing the chain to be broken at the remote server is fixed, rerun the application and perform the updates again.

Operator Response: Operator will not detect this problem.

System Programmer Response: See "Problem Determination" section below.

Problem Determination: Collect the following diagnostic items from the local DB2 system.

- Listing of application program and output from application program.
- Console output and a listing of SYSLOG data set for the period of time spanning the failure.
- Listing of SYS1.LOGREC data set, obtained by executing IFCEREP1.

Consult with the remote server system programmer to determine the cause of the error.

The remote server system programmer may need to collect the following remote server diagnostic items:

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server dumps.

00D30101

Explanation: A COMMIT was attempted but failed due to a prior error. Communications to a remote site have been lost. The COMMIT operation cannot be performed because the COMMIT request could not be transmitted to a remote site. If the program has performed updates,

the updates have been backed out to the prior COMMIT point.

This reason code is issued by the following CSECT: DSNLCMT1

System Action: All update operations were backed out.

Operator Response: Notify the system programmer.

System Programmer Response: Restart DDF at the affected sites and rerun the application.

00D30103

Explanation: This reason code may be returned for a failed distributed commit using DRDA protocols. It indicates that commit has failed because an ABNUOWRM reply message was received from the server for a prior SQL statement, but an abort had not been driven at the DB2 requester prior to this commit and after the receipt of the ABNUOWRM.

An ABNUOWRM reply message is sent by the server when it has rolled back its unit-of-work in response to an unusual situation at the server (for example, deadlock or operator intervention). When an ABNUOWRM reply message is received by the requester, an abort must be driven at the requester to synchronize the distributed systems. Until an abort is driven, all subsequent SQL statements will receive an SQLCODE -906. After an abort is driven, further SQL statements will be accepted.

This reason code is issued by the following CSECT: DSNLCMT1

System Action: The commit at the DB2 requester fails.

User Response: Scan backwards in your application for the first non -906 SQLCODE prior to the commit. This SQLCODE was returned with the ABNUOWRM from the server system. Use the server product reference manuals to determine and correct whatever problem this SQLCODE represents on the server and rerun your application. This may involve contacting your system programmer if the situation at the Server cannot be corrected or improved by changes to the application program.

Operator Response: The operator will not detect this problem.

System Programmer Response: Determine the cause of the problem represented by the SQLCODE returned with the ABNUOWRM and if necessary, work with the system programmer at the server to resolve it. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items:

- User's application output, including SQLCAs returned for each SQL statement.

00D30104

Explanation: The unit-of-work disposition (commit or rollback) received from a DRDA server is inconsistent with the command sent (commit or rollback), and the SQL code returned from the server. For example, if a commit is sent to the server, and the reply message indicates the unit of work (UOW) was committed, but the SQL code returned is negative, then this reason code will be contained in the alert sent to NetView.

This reason code is issued by the following CSECTs: DSNLCMT1 DSNLBABR.

System Action: An alert is generated and sent to NetView. Two trace records, IFCID 0191 and IFCID 0193, may be written to the Statistics Class 4 trace, and two DSNL0311 messages may be written to the console. The trace records and messages will not be written if this error was previously detected within the last 5 minutes. The Statistics Class 4 trace must be active for the trace records to be written.

An SQLCODE +30100, -30020, or -30030 is returned to the application. An SQLCODE -30020 indicates a rollback was sent to the DRDA server, but a commit unit-of-work disposition was received. An SQLCODE +30100 or -30030 conveys the unit-of-work disposition reported by the server, and replaces the original SQL return code sent by the server, which was not consistent with the UOW disposition. The original SQL return code and SQLSTATE returned by the server are saved as tokens in the SQLCA.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DRDA distributed protocol problem. Once the nature of the inconsistency is known, the server system programmer may have to be contacted to help resolve the problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items:

- Listing of the user's application program output, including printouts of the SQLCAs received for all SQL statements.
- Console output from the system on which the job was run, and a listing of SYSLOG data set for the period of time spanning the failure.
- Listing of the Statistics Class 4 trace records for the LUWID associated with the failing request.

If no DSNL0311 messages were written at the same time as the alert, then scan the log backwards for previous DSNL0311 messages. A DB2 filter function prohibits multiple occurrences of the same problem detected within a 5 minute period from flooding the

console and trace data set with diagnostic information. You will have to find an earlier occurrence of the same problem to start diagnosing it.

Once you have found the two DSNL0311 messages, locate the IFCID 0191 and 0193 trace records written for the problem by using the IFCID sequence numbers from the DSNL0311 messages.

The IFCID 0193 trace record will document the nature of the inconsistency (command sent, UOW disposition received, SQL return code received).

The IFCID 0191 trace record will document the exact data stream returned from the Server. Use this information to determine if the reply message from the server was correctly converted into the UOW disposition and the SQL return code reported in the IFCID 0193 record. If the data stream was correctly converted, then the problem lies at the server and you should contact the system programmer at the server and have him or her analyze the data stream produced by the server.

00D30105

Explanation: A distributed commit has failed because the allied agent was cancelled as a result of a STOP DDF MODE(FORCE) command during a previous execution of DDF which has terminated. When an allied agent does not issue database requests for more than 2 minutes after a STOP DDF MODE(FORCE) command is issued, DDF will come down without terminating the allied agent. The agent is cancelled when it makes its next request to DB2.

This reason code is issued by the following CSECT: DSNLCMT1

System Action: The commit operation is failed and the agent is cancelled. The last unit of work was rolled back at all server systems when the STOP DDF MODE(FORCE) command was processed.

User Response: Contact the operator to re-start DDF. After DDF is re-started, continue your application's work starting with the last unit of work that was rolled back.

Operator Response: Re-start DDF.

00D30106

Explanation: The result of a DRDA distributed commit could not be determined because the reply message from the server either was invalid or could not be deciphered.

This reason code is issued by the following CSECT: DSNLCMT1

System Action: An alert is generated and sent to NetView. An IFCID 0191 trace record may be written to the statistics class 4 trace, and a DSNL0311 message may be written to the console. The trace record and

message will not be written if this error was previously detected within the last 5 minutes. The statistics class 4 trace must be active for the trace records to be written.

The requester disconnects from the server system. The state of the unit of work at the server is unknown. It may have been committed, or it may have been rolled back. An SQLCA indicating the nature of the DRDA reply message distortion is given to the application.

User Response: Notify the system programmer. After the problem has been resolved, re-connect to the server site to determine whether the last unit of work was committed or rolled back. Continue your application after correcting the server database (if necessary).

Operator Response: Notify the system programmer whenever a DSNL0311 message is written to the MVS console.

System Programmer Response: This is a DRDA distributed protocol problem. Once the nature of the problem is known, the server system programmer may have to be contacted to help resolve the problem.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items:

- Listing of the user's application program output, including printouts of the SQLCAs received for all SQL statements.
- Console output from the system on which the job was run, and a listing of SYSLOG data set for the period of time spanning the failure.
- Listing of the statistics class 4 trace records.

If no DSNL0311 message was written at the same time as the alert, then scan the log backwards for a previous DSNL0311 message. A DB2 filter function prohibits multiple occurrences of the same problem detected within a 5 minute period from flooding the console and trace data set with diagnostic information. You will have to find an earlier occurrence of the same problem to start diagnosing it.

Once you have found the DSNL0311 message, locate the IFCID 0191 trace record written for the problem by using the IFCID sequence number from the DSNL0311 message.

The IFCID 0191 trace record will document the exact data stream returned from the server. Use this information to determine if the reply message from the Server was correct, and if so, the error resides with the DB2 AR.

If the data stream is incorrect, then the problem lies at the server and you should contact the system programmer at the server and have he or she analyze the data stream produced by the server.

00D30109

Explanation: Phase 1 of a distributed commit failed. One or more remote servers did one of the following:

- Voted NO
- Voted heuristic mixed
- Experienced a communications error
- Made an error in their use of commit protocol

This reason code is issued by the following CSECT: DSNLCMT1

System Action: The commit fails. The unit of work is backed out.

For communication errors, message DSNL406I is written to the system console, alert A006 is generated, and trace record IFCID 0209 is produced to record the server affected (LUWID of the unit of work, and other information).

For protocol errors, message DSNL413I is written to the system console, alert A005 is generated, and trace record IFCID 0208 is produced to describe the nature of each server's protocol violation.

User Response: Contact the DB2 systems programmer. If the commit failed for other than a commit protocol violation by a remote server, resubmit your application. Otherwise, wait for resolution of the protocol error.

System Programmer Response: For protocol errors, contact the system programmer for the remote site. The invalid sync point message is recorded in the IFCID 0208 trace record. The system logic error that causes the invalid sync point message must be corrected at the remote site.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D3010A

Explanation: This might occur when a version of IMS that does not support the COMMIT VERIFY exit is running an IMS MODE=MULTI application with one or more non-DB2 servers. This is probably a user error, since this scenario is not supported by DB2 and IMS unless the IMS version is 4 or later.

IMS requested a new user SIGNON without an immediately preceding commit or abort, and your application was connected to one or more remote non-DB2 servers. In order to preserve the consistency of database updates made at several different servers, when at least one server is a non-DB2 server, a commit or abort must precede any new user SIGNON.

This reason code is issued by the following CSECT: DSNLXNEW

System Action: The execution unit writes a record to SYS1.LOGREC. No dump is requested. The IMS

application terminates as a result of the abend.

Operator Response: Collect the SYS1.LOGREC. Notify the system programmer.

System Programmer Response: Determine if the IMS version and release being used invokes the DB2 COMMIT VERIFY exit, which is available in DB2 Version 3 and later. Obtain the SYS1.LOGREC.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D3010B

Explanation: Cached information was used to determine whether updates are allowed at the server. From the time of the execution of the CONNECT statement to the time that the first SQL statement was sent to the server, the conversation SYNC_LEVEL supported by the partner changed from a cached value of SYNC to the current of value NONE.

SYNC_LEVEL NONE servers are not allowed to update in the current unit of work. Since an update might have been performed by the partner during execution of the first statement at the server, the application must roll back (abort).

This reason code is returned as a token in the SQLCODE -904.

This reason code is issued by the following CSECT: DSNLTAC1

System Action: The connection to the server is deallocated. The server's portion of the current unit of work is rolled back at the server. The application is placed in a must-abort state. All subsequent operations except rollback or abort fail with an SQLCODE -918. The remainder of the current unit of work is backed out when rollback or abort is performed or when the application terminates.

User Response: If your application does not do any work at a server for a long time after issuing a CONNECT, consider rewriting it to perform the CONNECT immediately before performing any work at the server. This minimizes the possibility of the server system going down and coming back up at a different SYNC_LEVEL.

Rerun your application starting with the unit of work containing the SQL statement that received an SQLCODE -904.

00D3010C

Explanation: Cached information was used to determine whether updates are allowed at the server. From the time of the execution of the CONNECT statement to the time that the first SQL statement was sent to the server, the partner was started with a program that does not support two-phase commit.

Such servers are not allowed to update in the current unit of work. Since an update might have been performed by the partner during execution of the first statement at the server, the application must roll back.

This reason code is returned as a token in the SQLCODE -904.

This reason code is issued by the following CSECT: DSNLTAC1

System Action: The connection to the server is deallocated. The server's portion of the current unit of work is rolled back at the server. The application is placed in a must-abort state. All subsequent operations except rollback or abort fail with an SQLCODE -918. The remainder of the current unit of work is backed out when rollback or abort is performed or when the application terminates.

User Response: If your application does not do any work at a server for a long time after issuing a CONNECT, consider rewriting it to perform the CONNECT immediately before performing any work at the server. This minimizes the possibility of the server system going down and coming back up at a different level.

Rerun your application starting with the unit of work containing the SQL statement that received the SQLCODE -904.

00D3010D

Explanation: DB2 requested updates at multiple servers, but at least one server does not support distributed two-phase commit.

This reason code is issued by the following CSECT: DSNLCMT1

System Action: The commit fails for this unit of work (UOW). If the application is using TSO or BATCH attach, then DB2 rolls back the UOW. If the application is using CICS or IMS attach, then CICS or IMS rolls back the UOW after receiving the NO commit vote from DB2.

User Response: Change the application so that updates to multiple servers (including the local server) are not performed within a single UOW unless all the update servers in the UOW support distributed two-phase commit.

Problem Determination: In the UOW that was not committed, the first SQL statement that performed an update that was not allowed received an SQLCODE

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-919. All subsequent SQL statements also received an SQLCODE -919 until a ROLLBACK or a static ROLLBACK SQL statement was executed (if either occurred).

00D3010E

Explanation: The DRDA server system does not support the authentication mechanism specified in the communications database. For example, the communications database specified that RACF passtickets were supposed to be used, but the server does not support it.

System Action: The attempt to access the remote server fails. An SQLCODE -30073 is returned to the application.

User Response: Notify the system programmer.

System Programmer Response: Modify the row in SYSIBM.LUNAMES or SYSIBM.IPNAMES to specify a security mechanism in the SECURITY_OUT column that the remote server supports.

00D3010F

Explanation: DB2 was unable to authenticate the DRDA end user, due to an error detected by RACF or DCE.

System Action: The end user's attempt to connect is rejected. An SQLCODE -30082 is returned to the application.

User Response: Notify the system programmer.

System Programmer Response: Correct the error detected by DCE or RACF. Both products write messages to the MVS console describing the error.

00D30110

Explanation: A DRDA error occurred. The DB2 crypto security component detected an error and could not process the encryption security tokens used to authenticate the end user.

System Action: The attempt to connect to DB2 fails, the failure is reported to the SQL application with an SQLCODE of -30082, and the connection is terminated.

System Programmer Response: Determine the reason for the failure by verifying the DRDA data stream and by reviewing the server diagnostic work area returned in the DRDA security check reply message.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D31010

Explanation: An internal logic error occurred while a DCRM functional service was being invoked.

This abend reason code is issued by the following CSECT: DSNLCnnn

DSNLCnnn identifies that a DCRM Conversation manager CSECT detected a logic error. Refer to the dump title for the specific CSECT name.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31011

Explanation: An internal logic error occurred while invoking a VTAM functional service.

This abend reason code is issued by the following CSECT: DSNLVnnn

DSNLVnnn identifies that a DCRM VTAM manager CSECT detected a logic error. Refer to the dump title for the specific CSECT name.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC listing and the SVC dump.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31012

Explanation: A VTAM functional service request failed because the state of the conversation was invalid for the request.

This abend reason code is issued by the following CSECTs: DSNLVDDC DSNLVFSM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC listing and the SVC dump.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31013

Explanation: A DB2 message was received with an invalid message block header (MBH). The MBH is a header that precedes all messages exchanged between two DB2 subsystems.

This abend reason code is issued by the following CSECTs:

DSNLVASY DSNLVRCA DSNLVRQP

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC listing and the SVC dump.

System Programmer Response: Determine which connected sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following

diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31014

Explanation: One or more invalid parameters were supplied while invoking a VTAM functional service.

This abend reason code is issued by the following CSECTs:

DSNLVASY DSNLVDDC DSNLVFSM DSNLVINF
DSNLVRCA DSNLVREQ DSNLVRQP DSNLVSCA
DSNLVSDA DSNLVSEA

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC listing and the SVC dump.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31018

Explanation: A syntax error was detected in a DDM reply received from a remote distributed database remote server.

This abend reason code is issued by the following CSECTs: DSNLCSRR DSNLCMSR

System Action: The attempt to access the remote database resource fails, and the failure is reported to the application.

A DSNL0311 message might have been written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem

determination,” on page 1353: 1, 83.

00D31019

Explanation: A DDM protocol error was detected in a DDM reply received from a remote distributed database remote server.

This abend reason code is issued by the following CSECTs: DSNLCMSR DSNLCSRR

System Action: The attempt to access the distributed resource fails, and the failure is reported to the local DB2.

A DSNL031I message might have been written to the console. Refer to the description of this message in this book for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 83.

00D3101A

Explanation: A syntax error was detected in a DDM request received from a remote distributed database local DB2.

This abend reason code is issued by the following CSECT: DSNLCRTD

System Action: The attempt to access the DB2 server fails, and the failure is reported to the local DB2.

A DSNL032I message might have been written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 83.

00D3101B

Explanation: A DDM protocol error was detected in a DDM request received from a remote distributed database local DB2.

This abend reason code is issued by the following CSECT: DSNLCRTD

System Action: The attempt to access the DB2 server

fails, and the failure is reported to the local DB2.

A DSNL032I message may have been written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 83.

00D3101C

Explanation: DB2 has detected an error while processing a connection request from DDCS. A DB2RA connection request was received from DDCS.

This reason code is issued by the following CSECTs: DSNLCRTD and DSNLIRTR.

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the DDCS system administrator.

System Programmer Response: This is probably not a DB2 problem. This error is most likely caused by an incorrect entry in the DCS directory on DDCS. Refer to *IBM Distributed Database Connection Services Installation and Configuration Guide* for information on configuring your DDCS system.

00D31022

Explanation: The requested VTAM function for allocating a conversation was not performed because the data manager returned an unavailable resource when attempting to read the SYSIBM.LOCATIONS table in the communication database (CDB). The LOCATION cannot be resolved to the remote DB2 subsystem LUNAME.

This abend reason code is issued by the following CSECT: DSNLVCLM

System Action: Notification of the failure is returned to the application. The conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For more information, refer to the explanation of message DSNL700I. Collect the following diagnostic items:

- Definitions of the communication database (CDB) table space, tables, and indexes involved in the error.

- Items 1 and 5 listed in Appendix B, "Problem determination," on page 1353.

00D31023

Explanation: A request for a protected SNA conversation was rejected by a DB2 server because the SNA exchange log names (XLN) process has not yet completed with the requesting system.

This abend reason code is issued by the following CSECT: DSNLVPFV

System Action: Message DSNL030I is displayed on the system console with reason code 00D31023. The SNA conversation is rejected with SNA sense code 08640001, indicating the SNA protocol for protected conversations was violated.

User Response: Notify the DB2 system programmer.

System Programmer Response: The requesting system should have sent a valid SNA XLN request before starting a protected conversation. Contact the system programmer for the requesting system to determine why the SNA XLN process was not completed successfully.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D31024

Explanation: The requested VTAM function for allocating a conversation was not performed because the location name is not defined in the SYSIBM.LOCATIONS table in the communication database (CDB).

This abend reason code is issued by the following CSECTs:

DSNLVAAC DSNLVCLM DSNLVPF5

System Action: Notification of the failure is returned to the application. The conversation is not allocated to the specified location.

Operator Response: Notify the system programmer.

System Programmer Response: Add the location to the SYSIBM.LOCATIONS table.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 73, 74.

00D31025

Explanation: The requested VTAM function for allocating a conversation was not performed because a mode name could not be found in the SYSIBM.MODESELECT table in the communication database (CDB) for the requesting thread.

This abend reason code is issued by the following CSECT: DSNLVCLM

System Action: Notification of the failure is returned to the application. The conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: Add the mode name to be selected in the SYSIBM.MODESELECT table for the authorization ID, PLANNAME, and LUNAME of the service request that failed.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 75, 76.

00D31026

Explanation: The requested VTAM function was not performed because VTAM returned a nonzero return code while attempting to communicate on a conversation.

This abend reason code is issued by the following CSECT: DSNLVRPL

System Action: Notification of the failure is returned to the application. The conversation is abnormally deallocated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For more information, refer to the explanation of message DSNL500I or message DSNL502I, depending on the type of conversation that failed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5,

00D31027

Explanation: The requested VTAM function cannot be performed because VTAM is abending or because the operator has issued a HALT NET command to terminate VTAM.

This abend reason code is issued by the following CSECTs:

DSNLVAAC DSNLVASY DSNLVCNS DSNLVDDC
DSNLVRCA DSNLVREQ DSNLVSCA DSNLVSDA
DSNLVSEA DSNLVPCS DSNLVPF5 DSNLVRQP

System Action: Notification of DDF termination is reported to the application. No remote communications are allowed. The distributed data facility is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Determine why VTAM was terminated.

00D31029

Explanation: The requested VTAM function to allocate a conversation failed. VTAM returned a nonzero return code while attempting to negotiate limits with a remote location for a mode.

This abend reason code is issued by the following CSECT: DSNLVCNS

System Action: Notification of the failure is returned to the application. All communications to the remote location on the mode fail until the CNOS is successfully negotiated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For more information, refer to the explanation of message DSNL501I.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00D3102A

Explanation: A conversation was not allocated because a VTAM LU name contained in the LUNAME column of the SYSIBM.LULIST table was also present in the LUNAME column of the SYSIBM.LUNAMES table. A given VTAM LU name can appear in only one of these two tables.

System Action: The conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: Make sure each remote VTAM LU is defined in the SYSIBM.LULIST table or the SYSIBM.LUNAMES table, but not both tables.

Problem Determination: Collect the following diagnostic items:

- Print the contents of the SYSIBM.LUNAMES table.
- Print the contents of the SYSIBM.LULIST table.

This abend reason code is issued by the following CSECT: DSNLVCLM

00D3102B

Explanation: A conversation was not allocated because the partner LU attempted to allocate a conversation using a blank mode name. Although DB2 tolerates CNOS requests with a blank mode name, DB2 does not accept conversations with a blank mode name.

System Action: Message DSNL030I is displayed on the system console with reason code 00D3102B. The conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the definitions at the partner LU to prevent conversations from being allocated with a blank mode name.

00D31031

Explanation: The local distributed data facility (DDF) is terminating.

This reason code is issued by the following CSECTs:

DSNLCCCN	DSNLVAAC	DSNLVCNS	DSNLVDDC
DSNLVINP	DSNLVRCA	DSNLVREQ	DSNLVSCA
DSNLVSDA	DSNLVSEA		

System Action: Notification of the failure is returned to the application. DB2 does not allow any new distributed threads while DDF is in termination or is terminated.

User Response: Contact your system programmer to determine why DDF was terminated.

Operator Response: Contact the system to determine the cause of DDF termination.

System Programmer Response: To determine why DDF was terminated and then start DDF.

00D31032

Explanation: The requested VTAM function failed because the distributed data facility (DDF) at the remote location is terminating.

This abend reason code is issued by the following CSECTs:

DSNLCRTR	DSNLCTRM	DSNLVRPL
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System Action: DB2 writes a SYS1.LOGREC record. No communication on the conversation is allowed.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the cause of the DDF termination, contact the communication administrator at the location.

00D31033

Explanation: The VTAM function request to allocate a conversation failed because the thread timed-out while waiting for a session.

This abend reason code is issued by the following CSECT: DSNLVALM

System Action: Notification of the failure is returned to the application.

Operator Response: Notify the system programmer.

System Programmer Response: The defined session limit for the mode used by the thread might be too small. The CONVLIMIT specified for the mode might have to be negotiated with the communication administrator at the remote subsystem.

Problem Determination: Refer to message DSNL510I for the limit negotiated by VTAM for the location and mode used by the thread. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 77.

00D31034

Explanation: The MAX REMOTE CONNECTED limit was reached and the conversation was abnormally deallocated. The thread was not allowed to connect to DB2.

This abend reason code is issued by the following CSECT: DSNLVPFV

System Action: The requester is not connected to DB2.

Operator Response: Notify the system programmer.

System Programmer Response: The maximum number of database access threads that can concurrently exist is defined by the installation option MAX REMOTE CONNECTED. When the MAX REMOTE CONNECTED limit is equal to the number of active database access threads plus the number of inactive database access threads, additional threads are not allowed to connect to DB2. Use the DDF global statistics to determine if the limit should be increased.

Problem Determination: Collect the following diagnostic items:

- DDF global statistics to determine the number of requests that failed because of the MAX REMOTE CONNECTED limit.

00D31035

Explanation: The requested VTAM function failed. The database access agent was aborted at the remote location. Notification of the failure is returned to the application. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCTRC

System Action: DB2 writes a SYS1.LOGREC record and requests an SVC dump at the failed DB2 site.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of

the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31036

Explanation: The LINKNAME column of the SYSIBM.LOCATIONS table was invalid. Since LINKNAME is a foreign key of the SYSIBM.LUNAMES table, the LINKNAME column must specify one of the values provided in the LUNAME column of the SYSIBM.LUNAMES table. This error should not occur.

This abend reason code is issued by the following CSECT: DSNLVCLM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC, and the SVC dump.

System Programmer Response: Obtain copies of the SYS1.LOGREC and SYSLOG data sets from the DB2 site with the inconsistently defined communications database (CDB).

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31037

Explanation: The remote server was not successfully connected. The SYSIBM.USERNAMES table did not contain an outbound row, the TYPE column specified as an 'O' describing the remote authorization identifier to be used for the primary DB2 authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'O' or 'B' requiring outbound name translation, the SYSIBM.USERNAMES table must contain entries describing the remote authorization IDs to be used for each DB2 authorization ID communicating with the LU.

This reason code is issued by the following CSECTs:

DSNLCCCN DSNLCSRR DSNLTMIG

System Action: A resource unavailable is returned to the application. The request is not sent to the remote site.

00D31038

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USER NAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from the DB2 authorization IDs, verify that the SYSIBM.USER NAMES table has rows that correctly specify the remote authorization ID to be used for each possible DB2 authorization ID.

Problem Determination: Analyze the SYSIBM.USER NAMES table for an incorrect or missing entry.

00D31038

Explanation: A conversation was not allocated for one of these reasons:

- The requesting LU is part of a DB2 sysplex. When one or more LU names within a DB2 sysplex appear in the SYSIBM.LULIST table at the remote site, all LU names within the sysplex must be identified in the SYSIBM.LULIST table at the remote site.
 - You might have intended to list all the sysplex's LU names in the SYSIBM.LULIST table, but you did not include one or more LU names.
 - You listed a subset of the LU names in SYSIBM.LULIST but none of the LU names you listed are currently available. Please note that it can take up to 3 minutes for LU availability information to be updated following START DDF at the remote site.
- The location name sent to a remote site does not match the location name recorded in the BSDS at that remote site.
- The local SYSIBM.LULIST table is incorrectly defined for the remote location.

A DSNL030I message might have been written to the console.

System Action: A record is written to SYS1.LOGREC and the conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: The CDB tables and DB2 BSDS parameters must correctly associate the LOCATION names with their corresponding LUNAME names.

The cause of this error is usually one of the following:

- The BSDS at the remote site does not have the correct LOCATION or LUNAME value, which causes the remote DBMS to respond to the wrong LOCATION name when receiving distributed database requests.
- The SYSIBM.LOCATIONS table at the local DB2 system has an incorrect value in the LINKNAME or

LOCATION column for the failing LOCATION, which causes the request to be sent to the wrong remote DBMS.

- The SYSIBM.LULIST table at the local DB2 system has an incorrect value in the LUNAME column for the failing LOCATION, which causes the request to be sent to the wrong remote DBMS.
- Not all LU names in the requesting DB2 sysplex are defined in the SYSIBM.LULIST table at the remote site.
- Not all LU names in the requesting DB2 sysplex are defined in the SYSIBM.LULIST table at the server DB2 subsystem. The remote LU is not allowed access to the server subsystem.

In general, when the requester is a member of a sysplex, each member of the requesting sysplex should be defined in SYSIBM.LULIST of the server subsystem. However, there may be causes where an LU of a remote sysplex is not defined in SYSIBM.LULIST of the local subsystem to prevent the remote LU from being a candidate member when accessing the remote sysplex. This is known as "member specific routing". If the remote sysplex LU attempts to access the local subsystem, this reason code will be returned if the remote LU is not defined in the local SYSIBM.LULIST table and is also not defined in SYSIBM.LUNAMES. Remote requesting sysplex members can be defined in SYSIBM.LULIST, or, when member specific routing requirements to the remote sysplex member are desired, the remote sysplex LU can be defined in SYSIBM.LUNAMES for inbound purposes from the remote sysplex LU that contain the appropriate inbound security characteristics.

- The local DB2 system contains a SYSIBM.LULIST row for a remote system that is not a member of a Data Sharing group. SYSIBM.LULIST rows CANNOT be defined for remote non Data Sharing server systems. Remove the SYSIBM.LULIST row for the remote systems.

Problem Determination:

- Determine the LUNAME and LOCATION name of the DB2 system that attempted to start a VTAM conversation.
- Print the contents of the SYSIBM.LOCATIONS table at that site.
- Print the contents of the SYSIBM.LULIST table at both the local site and the remote site.
- Determine the LUNAME and LOCATION name of the remote DBMS involved in the failure from the BSDS at the remote site.
- Issue the -DISPLAY LOCATION command to determine which LUNAMES and LOCATIONS were active at the time of failure.

This abend reason code is issued by the following CSECTS:

DSNLCSIM DSNLVCLM DSNLVPF5

00D31039

Explanation: The requested VTAM function to allocate a conversation was not performed because the SYSIBM.USERNAMES table at the requesting site did not contain a row describing the remote authorization ID to be used for this DB2 authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'O' or 'B', outbound name translation is in effect. The SYSIBM.USERNAMES table must contain entries describing the remote authorization ID to be used for each DB2 authorization ID communicating with that LUNAME.

This abend reason code is issued by the following CSECT: DSNLVCLM

System Action: A record is written to SYS1.LOGREC, and the conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from the DB2 authorization ID, verify that the SYSIBM.USERNAMES table has rows that correctly specify the remote authorization ID to be used for each possible DB2 authorization ID. These rows must specify 'O' in the TYPE column of the SYSIBM.USERNAMES table.

Problem Determination: Determine the LUNAME and authorization ID for the failing VTAM conversation. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 58, 59.

00D3103A

Explanation: Database access agent allocation failed because the RACROUTE REQUEST=EXTRACT macro failed to locate a user profile for the DB2 primary authorization ID obtained from the SYSIBM.USERNAMES table. When the ENCRYPTPSWDS column in SYSIBM.LUNAMES specifies 'Y', the requesting DB2 system must be able to extract the encrypted password (via RACROUTE REQUEST=EXTRACT) and send this encrypted password to the responding DB2 system for validation.

This reason code is issued by the following CSECT: DSNLVINF

System Action: The reason code is returned to the application.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the new

authorization ID column in SYSIBM.USERNAMES has been specified correctly for the indicated LUNAME. If you intend to use encrypted passwords, the new authorization ID must be defined to your MVS security subsystem.

Problem Determination:

- Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.
- Verify that the names given in the NEWAUTHID column are defined to your MVS security subsystem properly.

00D3103B

Explanation: An attempt to allocate an LU6.2 conversation failed because the conversation limits for the desired partner LU and VTAM MODE have been reached.

This abend reason code is issued by the following CSECT: DSNLVALM

System Action: This reason code is generated internally when an attempt is made to allocate an LU6.2 conversation and conversation limits have been reached for the desired partner LU and VTAM MODE. In this situation, the requesting DB2 system will attempt to reuse one of the existing LU6.2 conversations that have already been allocated to the agent in question.

The allocate process will be retried using the existing conversation.

System Programmer Response: If you increase the LU6.2 conversation limits for the indicated partner LU and VTAM MODE, it will not be necessary for DB2 to reclaim conversations in order to allocate additional LU6.2 conversations. The reclaiming process will reduce system throughput, since the reclaimed conversation will have to service multiple SQL statements.

00D3103C

Explanation: An attempt to allocate an LU6.2 conversation failed because the specified partner LU cannot support the LU6.2 SECURITY=SAME capability (that is, the LU6.2 Already-Verified security function).

This abend reason code is issued by the following CSECT: DSNLVAAC

System Action: The attempt to allocate an LU6.2 conversation fails, and the error is reported to the DB2 application that requested access to the distributed resource.

User Response: Notify your DB2 system programmer.

System Programmer Response: DB2 will attempt to use SECURITY=SAME when connecting to remote database systems whose USERSECURITY column in the SYSIBM.LUNAMES table contains a value other than 'C'. In order to support the LU6.2 SECURITY=SAME function, the target DBMS must

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declare support for the SECURITY=SAME function.

If the target DBMS is DB2, support for the SECURITY=SAME function is declared by specifying the following:

1. The DB2 VTAM APPL definition must specify SECACPT=ALREADYV at the remote DB2 subsystem.
2. The value in the USERSECURITY column of the SYSIBM.LUNAMES table at the remote DB2 subsystem must specify a value other than 'C' in the row associated with the requesting DB2 subsystem.

Problem Determination: Collect the following diagnostic items:

- The VTAM APPL definition for the remote DB2 system.
- The contents of the SYSIBM.LUNAMES table.

00D3103D

Explanation: An attempt to allocate a VTAM LU6.2 conversation with a remote site failed because the request did not contain the proper security information.

This abend reason code is issued by the following CSECT: DSNLVRPL

System Action: The attempt to access the remote database resource failed and the failure is reported to the application.

User Response: Notify the communications database administrator.

System Programmer Response: This error is usually caused by transmitting an invalid authorization ID or password in a request to the remote site. However, this is not always the case, so it is important to review the diagnostic information at the remote site to determine the cause of the failure.

- If the remote site is a DB2 subsystem, refer to the DSNL030I message at the remote site for the cause of the security failure. Additionally, an ALERT will be recorded in NetView (if the NetView product is available) to describe the security failure.

If the remote site is not a DB2 subsystem, obtain any diagnostic information about the security failure at the remote site.

If you suspect the authorization ID or password is not correct, the DB2 CDB on the local DB2 system should be examined to validate the following items:

- If the remote site requires both an authorization ID and a password on LU6.ALLOCATE requests (i.e., the remote site does not accept already-verified ALLOCATE requests), the USERNAMES column of the SYSIBM.LUNAMES table at the local DB2 system must specify either 'O' or 'B'.
- If the USERNAMES column of the SYSIBM.LUNAMES table at the local DB2 system

specifies 'O' or 'B', the SYSIBM.USERNAMES table will be used to determine the authorization ID and password sent on the LU6.ALLOCATE request.

If you intend to translate the authorization IDs, ensure that the NEWAUTHID column of the SYSIBM.USERNAMES table contains the correct authorization ID to be used at the remote site.

- If the remote site is a DB2 system, the ENCRYPTPSWDS value in the SYSIBM.LUNAMES table must exactly match the ENCRYPTPSWDS column of the SYSIBM.LUNAMES table at the remote site.
- If the remote site is not a DB2 system, the ENCRYPTPSWDS value in the SYSIBM.LUNAMES table must be set to 'N'.
- If you are transmitting passwords to the remote site, the password transmitted by the local DB2 system must exactly match the value expected by the remote site.

1. For encrypted passwords, the password sent to the remote DB2 subsystem is obtained by extracting the RACF password of the user identified by the NEWAUTHID column in the SYSIBM.USERNAMES table. This user's RACF password must exactly match the password at the remote site.

2. If password encryption is not used, the password will be taken from the PASSWORD column of the SYSIBM.USERNAMES table. This value must exactly match the password at the remote site.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 58, 59, 1.

00D3103E

Explanation: The requested VTAM function to allocate a conversation was not performed because the VTAM MODE specified a conversation limit of zero. The conversation limits must be set to a value greater than zero before a conversation can be allocated.

This abend reason code is issued by the following CSECT: DSNLVALM

System Action: The conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: If you have placed entries in the SYSIBM.LUMODES table, make sure CONVLIMIT column has a nonzero value. If you are allowing the session limits to be chosen by VTAM, make sure the DSESLIM values on the VTAM APPL and mode entries are nonzero.

Problem Determination: Collect the following diagnostic items:

- Determine the LUNAME and MODE name of the DB2 system that attempted to start a VTAM conversation.
- Print the contents of the SYSIBM.LUMODES table.

- Determine the session limits defined on the VTAM APPL statement and the VTAM MODE entry.

00D3103F

Explanation: An attempt to allocate a VTAM LU6.2 conversation with a remote site failed because the server at the remote LU does not support the SNA two-phase commit process.

This abend reason code is issued by the following CSECT: DSNLVRPL

System Action: DB2 starts a new conversation to the remote site that does not use two-phase commit. DB2 does not attempt to use two-phase commit with this remote site until DDF is restarted.

System Programmer Response: This reason code is produced when the LU at the remote site supports two-phase commit, but the TPN at the remote LU does not support two-phase commit. This is a normal situation, so no system programmer action is required.

00D31040

Explanation: The requested VTAM function failed before the database access agent has failed. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLCTRC DSNLCRTR DSNLCRTD

System Action: DB2 writes a SYS1.LOGREC record and requests an SVC dump at the failed DB2 site.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 failure. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31041

Explanation: The requested VTAM function to allocate a conversation was not performed because the SYSIBM.USERNAMES table at the responding site did not contain a row whose authorization ID column matches the DB2 authorization ID received from the

requesting DB2 system. When the USERNAMES column in SYSIBM.LUNAMES specifies 'I' or 'B', inbound name translation is in effect. The SYSIBM.USERNAMES table must contain entries describing the local DB2 authorization ID to be used for each DB2 authorization ID sent by the requesting DB2 system.

This abend reason code is issued by the following CSECT: DSNLVCLM

System Action: A record is written to SYS1.LOGREC and the conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use local authorization IDs that differ from the remote DB2 authorization ID, verify that the SYSIBM.USERNAMES table has rows that correctly specify the local authorization ID to be used for each possible remote authorization ID. These rows must specify 'I' in the TYPE column of the SYSIBM.USERNAMES table.

Problem Determination: Determine the LUNAME and authorization ID for the failing VTAM conversation. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 58.

00D31042

Explanation: The requested VTAM function failed. The connection to the remote location was interrupted. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCSIM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the failed DB2 site.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31043

Explanation: The requested VTAM function failed. The connection from the remote location was interrupted. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCSIM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the failed DB2 site.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31044

Explanation: A remote subsystem has attempted to allocate a VTAM LU6.2 conversation, but the request was rejected because the request did not contain the proper security information. The FMH5 received from the remote subsystem did not contain any security subfields. This represents SECURITY=NONE in the LU6.2 architecture, which is not supported by DB2.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to access the remote database resource fails and the failure is reported to the application.

A DSNL030I message may have been written to the console.

User Response: Notify the communications database administrator.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that the remote subsystem is configured to send valid security subfields.

If the remote subsystem is DB2, make sure the VTAM APPL definition does not specify SECACPT=NONE, which is the default for the VTAM APPL definition. SECACPT=NONE will cause VTAM to remove the security subfields from the FMH5.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following

diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58, 59.

00D31045

Explanation: A remote subsystem has attempted to allocate a VTAM LU6.2 conversation, but the request was rejected because the request did not contain the proper security information. The FMH5 received from the remote subsystem did not contain the security subfield that supplies the USERID, or the USERID was not 1 to 8 bytes in length.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to access the remote database resource fails and the failure is reported to the application.

A DSNL032I message may have been written to the console. Refer to the description of this message for further information.

User Response: Notify the communications database administrator.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that the remote subsystem is configured to send valid security subfields.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58, 83, 59.

00D31046

Explanation: A remote subsystem has attempted to allocate a VTAM LU6.2 conversation, but the request was rejected because the request did not contain the proper security information. The FMH5 received from the remote subsystem indicated SECURITY=SAME (also known as Already-Verified) and the subsystem in question was not authorized to send requests with SECURITY=SAME.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to access the remote database resource fails and the failure is reported to the application.

A DSNL030I message may have been written to the console.

User Response: Notify the communications database administrator.

Operator Response: Notify the system programmer.

System Programmer Response: The request was rejected because the SECURITY_IN column of the SYSIBM.LUNAMES table contained a 'V' in the row associated with the remote system. The value 'V' indicates that the remote system must send both a USERID and a PASSWORD, which corresponds to SECURITY_PGM in the SNA LU6.2 architecture. Users should also be aware that in the absence of a SYSIBM.LUNAMES row that specifically identifies the remote LU, a "default" SYSIBM.LUNAMES row (blank LUNAME) may be utilized, if defined, if the inbound connection is via DRDA protocols. This "default" row may not reflect the desired inbound security characteristics in which case a SYSIBM.LUNAMES row can be defined that explicitly identifies the remote LU.

If the remote LU is a member of a remote sysplex and the local system requires access to the remote sysplex, then members of the remote sysplex to be accessed must be defined in the local SYSIBM.LULIST table. In this case, the remote sysplex LU can be defined in the local SYSIBM.LULIST table although a SYSIBM.LUNAMES definition, default row or explicit definition, is appropriate in cases where it is undesirable to define the remote LU in SYSIBM.LULIST (for example when you don't want the remote LU to be a candidate member when outbound accessing the remote SYSPLEX location).

This problem can be corrected in two ways:

1. If you would like DB2 to accept requests that are marked with SECURITY=SAME, change the SECURITY_IN value in the SYSIBM.LUNAMES table to 'A' for the remote LU in question. Also the DB2 VTAM APPL definition should specify SECACPT=ALREADYV.
2. If you would like DB2 to continue to reject requests of this kind, the remote LU must be configured to send requests that contain both a USERID and PASSWORD (SECURITY=PGM in SNA LU6.2 terms).

If the remote LU is DB2, the SECURITY_OUT column in the SYSIBM.LUNAMES table must specify either 'R' or 'P' in the row associated with the local DB2 subsystem.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58, 59.

00D31047

Explanation: A remote subsystem has attempted to allocate a VTAM LU6.2 conversation, but the request was rejected because the request did not contain the proper security information. The FMH5 received from the remote subsystem did not contain the security

subfield that supplies the PASSWORD, or the PASSWORD was not 1 to 8 bytes in length.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to access the remote database resource fails and the failure is reported to the application.

A DSNL032I message may have been written to the console. Refer to the description of this message for further information.

User Response: Notify the communications database administrator.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that the remote subsystem is configured to send valid security subfields.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58, 59, 83.

00D31048

Explanation: The requested VTAM function for allocating a conversation at the DB2 server was not performed because the requester's LUNAME is not defined in the SYSIBM.LUNAMES table of the communication database (CDB) at the server.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: Notification of the failure is returned to the application. The conversation is not allocated to the specified location.

Operator Response: Notify the system programmer.

System Programmer Response: Add the requester's LUNAME to the SYSIBM.LUNAMES table at the server. If the remote LU is DB2, the requester's LUNAME is the label name, as opposed to the ACBNAME keyword, on the DB2 VTAM APPL statement for the requester site. A server's SYSIBM.LUNAMES table should contain an entry for the requester's LUNAME.

Users should also be aware that in the absence of a SYSIBM.LUNAMES row that specifically identifies the remote LU, a "default" SYSIBM.LUNAMES row (blank LUNAME) may be utilized, if defined, if the inbound connection is via DRDA protocols. This "default" row may not reflect the desired inbound security characteristics in which case a SYSIBM.LUNAMES row can be defined that explicitly identifies the remote LU.

If the remote LU is a member of a remote sysplex and the local system requires access to the remote sysplex,

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then members of the remote sysplex to be accessed must be defined in the local SYSIBM.LULIST table. In this case, the remote sysplex LU can be defined in the local SYSIBM.LULIST table although a SYSIBM.LUNAMES definition, default row or explicit definition, is appropriate in cases where it is undesirable to define the remote LU in SYSIBM.LULIST (for example when you don't want the remote LU to be a candidate member when outbound accessing the remote SYSPLEX location).

A DSNL030I message may have been written to the console at the server.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 58.

00D31049

Explanation: A request using application-directed access starting at site 'A' referenced an object at site 'B' that is stored at site 'A'

This abend reason code is issued by the following CSECT: DSNLCCCN

System Action: The application statement was not processed.

User Response: Recode the application to remove the alias reference at the remote server that resolves to an object stored at the local DB2. Objects stored at the local site must be referenced using a local name.

Problem Determination: If necessary, consult with the database administrators at the local site and the remote server location. Inspect the remote SYSIBM.SYSTABLES catalog table to determine the object at this location being referenced in a circular manner.

00D3104A

Explanation: A remote server issued an SNA BACKOUT, which was not sent as a reply to an SNA PREPARE or REQUEST_COMMIT. This indicates the server backed out the current unit of work without waiting for the SQL application to either commit or roll back.

This abend reason code is issued by the following CSECT: DSNLVRPL

System Action: The attempt to access the remote database resource fails and the failure is reported to the application. DB2 terminates the SNA conversation to the remote server and forces the application to roll back.

User Response: Notify the DB2 systems programmer.

System Programmer Response: DB2 never issues an unsolicited SNA BACKOUT. Non-DB2 servers can send an SNA BACKOUT indication when resources required to complete the unit of work are not available.

For example, a deadlock might cause the non-DB2 server to send an SNA BACKOUT. Contact the system programmer for the remote system to determine why the unit of work had to be aborted.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D3104B

Explanation: An SNA conversation was rejected by a DB2 server because the SNA FMH5 specified SNA persistent verification. DB2 does not support the SNA persistent verification option.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: Message DSNL030I is displayed on the system console with reason code 00D3104B. The SNA conversation is rejected with SNA sense code X'080F6051', indicating the SNA security parameters in the FMH5 were not acceptable.

User Response: Notify the DB2 system programmer.

System Programmer Response: The SECACPT keyword on the VTAM APPL statement tells VTAM whether DB2 supports persistent verification. Because DB2 does not support persistent verification, the SECACPT=PERSISTV and SECACPT=AVPV options cannot be used on DB2's VTAM APPL statement.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D3104C

Explanation: The SNA Exchange Log Names (XLN) process failed because of a log name mismatch between DB2 and a remote LU in the network.

This abend reason code is issued by the following CSECT: DSNLCXLI

System Action: The attempt to allocate an SNA two-phase commit conversation fails with reason code 00D3104C. Message DSNL410 is displayed on the system console to describe the error.

User Response: Contact the DB2 systems programmer.

System Programmer Response: The log name recorded in the DB2 log does not match the log name currently in use at the remote LU. There are indoubt units of work that need to be resolved at this DB2 system. The log name required to resolve the indoubt units of work is displayed in the DSNL410 message.

If a non-DB2 partner was started with the wrong log, it might be possible to restart the non-DB2 partner with the desired log name. This should cause the indoubt units of work to be resolved automatically.

If the partner cannot be restarted with the desired log name, the -RECOVER INDOUBT command can be used to resolve the indoubt units of work. Once the indoubt units of work are resolved, DB2 will accept an SNA XLN with a new partner log name.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D3104D

Explanation: The local DB2 system does not support connectivity to the DB2 release currently running at the remote DB2 site.

This abend reason code is issued by the following CSECT: DSNLCSIM

System Action: The attempt to allocate an SNA conversation is rejected with reason code 00D3104D.

User Response: Contact the DB2 systems programmer.

System Programmer Response: DB2 distributed database connections can only be established between compatible DB2 releases. For example, DB2 Version 3 can connect to DB2 2.3, but not to DB2 2.2.

In order to establish connectivity, the down-level DB2 system must be migrated to a supported release of DB2.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D3104E

Explanation: An SNA Exchange Log Names (XLN) protocol violation was detected when attempting to establish a connection to a remote site.

This abend reason code is issued by the following CSECT: DSNLCXLI

System Action: The attempt to allocate an SNA conversation is rejected with reason code 00D3104E. Message DSNL421E is written to the system console and IFCID 0213 is produced to describe the protocol violation.

User Response: Contact the DB2 systems programmer.

System Programmer Response: Contact the system programmer for the remote site. The invalid XLN message is recorded in the IFCID 0213 trace record. The system logic error that causes the invalid XLN message must be corrected at the remote site.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D3104F

Explanation: A connection to a remote location was lost during a previous communication operation.

This abend reason code is issued by the following CSECTS:

DSNLCBCS DSNLCSRM DSNLCSRR DSNLCMSR

System Action: If the communication failure occurred during a commit or abort operation, the SQL application might not be aware that a failure occurred. Messages associated with the failure were written to the system console at the time of failure. Additionally, alerts were reported to NetView at the time of failure.

User Response: Reestablish the connection to the remote site and reissue the SQL statement.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D31050

Explanation: DB2 expected to receive security information for the remote client but a valid DRDA SECCHK command was not received for a connection request from a DRDA application requester (AR). The DRDA SECCHK command is only valid with a DRDA security manager level greater than or equal to 5.

This can be the case if one of the following occurs:

- The DRDA AR requested a DRDA security manager less than level 5 for an SNA connection where the APPL command for DB2 was specified with the SECACPT=NONE option.
- The DRDA SECCHK command did not contain the required security information.
- The DRDA AR requested a DRDA security manager less than level 5 for a TCP/IP connection.

This abend reason code is issued by the following CSECTS: DSNLTEXC, DSNLTSEC.

System Action: The attempt to access the local database resource fails, the failure is reported to the SQL application, and the conversation is terminated.

System Programmer Response: For SNA connections, if SECACPT=NONE and the DRDA AR does not support DRDA security manager level 5, contact the DB2 security administrator to change the SECACPT option to ALREADYV or CONV to allow for security information in the VTAM FMH-5 in the form of userid or userid/password fields. If SECACPT=NONE is not changed, then DB2 cannot accept connection requests from this remote client.

For SNA connections, If SECACPT=ALREADYV or CONV, then even though userid or userid/password fields in the FMH-5 are received and validated, DB2

must evaluate a DRDA SECCHK command if it is sent. If the DRDA AR requests this level of security but does not provide the correct information in the form of a SECCHK command, this is a DRDA protocol error committed by the DRDA AR implementation at the remote client.

For TCP/IP connections, this is a DRDA protocol error committed by the DRDA AR implementation at the remote client.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D31052

Explanation: An application caused recursive access to a remote location, followed by access to another remote location, which is not permitted.

For example, an application at location LOC1 might have connected to location LOC2 and accessed a table using an alias that resolves back to LOC1. There was a subsequent remote access from LOC1 to LOC n , which caused the error.

System Action: The attempt to access the remote location fails. The SQL application receives a -904 SQLCODE.

System Programmer Response: Correct the application program so that it does not cause recursive access to a location followed by remote access from that location. The application might have used table aliases, three-part table names, stored procedures, user-defined functions, or triggers to cause the condition.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 35, 73, 74.

00D31055

Explanation: The remote location defined in the SYSIBM.LOCATIONS table could not be accessed because the TCP/IP interface to DDF is not available.

System Action: The request to connect to a remote site fails. The SQL application receives a -904 SQLCODE.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: One of the following actions should be taken:

- If the remote site is not supposed to be using TCP/IP, add a row to SYSIBM.LUNAMES defining the LUNAME used by the remote location.

- If the remote site is correctly defined in the CDB, examine the messages written to the console during -START DDF processing. Those messages describe any errors that would prevent DDF from using TCP/IP.
- Determine if DB2 is started in restricted access mode. If so, retry the request when DB2 has been started in full access mode.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D31056

Explanation: The PORT column of the SYSIBM.LOCATIONS table could not be converted to a TCP/IP port number by the getservbyname TCP/IP socket call.

This abend reason code is issued by the following CSECT: DSNLxxxx

System Action: The request to connect to a remote site fails. The SQL application receives a -904 SQLCODE, and message DSNL514, DSNL517, or DSNL518 is written to the console describing the error.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Use the information in the DSNL514, DSNL517, or DSNL518 message to resolve the error.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D31057

Explanation: DB2 was able to find the row in SYSIBM.LOCATIONS for the LOCATION specified in the SQL request. However, the LINKNAME column value specified in LOCATIONS did not match any row in SYSIBM.LUNAMES or SYSIBM.IPNAMES.

This abend reason code is issued by the following CSECT: DSNLxxxx

System Action: The request to connect to a remote site fails. The SQL application receives a -904 SQLCODE.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Insert a row in SYSIBM.LUNAMES or SYSIBM.IPNAMES that matches the LINKNAME specified in SYSIBM.LOCATIONS.

00D31058

Explanation: The IPADDR column of the SYSIBM.IPNAMES table could not be converted to an IP address by the gethostbyname TCP/IP socket call.

This abend reason code is issued by the following CSECT: DSNLxxxx

System Action: The request to connect to a remote site fails. The SQL application receives a -904 SQLCODE, and message DSNL513, DSNL517, or DSNL518 is written to the console describing the error.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Use the information in the DSNL513, DSNL517, or DSNL518 message to resolve the error.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D31059

Explanation: An attempt to allocate a conversation to the remote site failed because DB2 was unable to obtain a RACF PassTicket. The user specified an 'R' in the SECURITY_OUT column of the SYSIBM.IPNAMES and/or SYSIBM.LUNAMES communications database (CDB) tables for the partner site. As a result, DB2 invokes RACF to extract a PassTicket for the partner site. However, RACF could not provide a PassTicket, and the attempt failed.

System Action: The attempt to access the remote database resource failed, and the failure is reported to the application.

User Response: Notify the system programmer.

System Programmer Response: The error usually occurs due to incorrect or missing RACF definitions. To avoid this error, specify the proper RACF definitions to provide for the PassTicket. Alternatively, you may avoid the use of PassTickets by changing the SECURITY_OUT column of the SYSIBM.IPNAMES and/or SYSIBM.LUNAMES CDB table for the partner site. For information regarding PassTickets, refer to Part 3 (Volume 1) of *DB2 Administration Guide*.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 14, 58, 74.

00D3105A

Explanation: Userid, password is not valid for the location specified. An SQL CONNECT with userid/password was issued to connect to a location that requires RACF PassTicket authorization. The entry in SYSIBM.SYSLUNAMES or SYSIBM.IPNAMES for the

location specified on the SQL CONNECT specifies that a connection request must contain a user ID and RACF PassTicket.

System Action: The connect request is not processed. The application is placed in the unconnected and connectable state.

00D31100

Explanation: The data communications function service was invoked with a parameter list that contained one or more invalid parameters. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLCBCS	DSNLCBUF	DSNLCCCN	DSNLCCDR
DSNLCCNR	DSNLCSIM	DSNLCMSR	DSNLCSRM
DSNLCTCN	DSNLCTDR	DSNLCTRC	

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and STS1.LOGREC at the site of a DB2 abend.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31101

Explanation: A data communications functional service was invoked with the cursor table marked invalid. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLCCCN	DSNLCCDR	DSNLCSRM
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System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected

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site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31102

Explanation: A data communications functional service encountered an inconsistency in the requesting thread control block structure. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLCCCN DSNLCSRM DSNLCTCN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31103

Explanation: A data communications functional service received an invalid logical-unit-of-work ID (LUWID) or no LUWID. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCCCN, DSNLCCDR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC as the site of the DB2 failure.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31104

Explanation: A data communications functional service cannot find a distributed processing block for the primary thread. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLCSRM DSNLCTCN DSNLCBCS DSNLCCNR
DSNLPCPR DSNLCTDR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31105

Explanation: A data communications functional service detected an invalid or incorrect buffer size on a send message operation. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCSRM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference*

for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31106

Explanation: A data communications functional service detected an invalid message sequence. One or more rows of data might have been lost. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCSRMR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31107

Explanation: A data communications functional service was invoked incorrectly (protocol violation) to wait for a message. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCSRMR, DSNLCCNR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31108

Explanation: A data communications functional service was invoked incorrectly (protocol violation) to receive a message. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCSRMR, DSNLCCNR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31109

Explanation: A data communications functional service was invoked incorrectly (protocol violation) to send a message. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCSRMR, DSNLCCNR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3110A

Explanation: A data communications functional service detected an invalid message sequence. One or more rows of data might have been lost. This is an internal error.

00D3110B • 00D31111

This abend reason code is issued by the following CSECTs: DSNLCSRM, DSNLCBCS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3110B

Explanation: While a message was being sent or received by the data communications resource manager, an internal error was detected in DB2. Register 4 contains a reason code that provides additional information about this error. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLCSRM DSNLCBCS DSNLCSIM DSNLCRR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31110

Explanation: Instrumentation facility component (IFC) has passed a nonzero return code to the data communications resource manager. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCRTR, DSNLCRTD

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31111

Explanation: The instrumentation facility component (IFC) passed a nonzero return code to the data communications resource manager. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCRTR, DSNLCRTD

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31112

Explanation: The data communications resource manager cannot find the LUWID for the remote thread in the database thread control blocks. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNLCRTR, DSNLCRTD

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain any related diagnostic information from each connected site and the SVC dump and SYS1.LOGREC at the site of the DB2 failure.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31113

Explanation: The data communications resource manager received an invalid set of control block pointers. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31114

Explanation: A data communications resource manager(DCCM) block for a deallocated conversation which belongs to a database access thread cannot be found. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31115

Explanation: The data communications resource manager attempt to enqueue a request for a database access thread failed. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31116

Explanation: The data communications resource manager received an invalid DC message number. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31117

Explanation: The data communications resource manager received a request with an invalid response type. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31118

Explanation: A message-processing routine returned to the data communications resource manager without the requested response. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D31119

Explanation: The data communications resource manager processed a request with an unassigned or disconnected message class. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3111A

Explanation: The data communications resource manager received an unexpected communications error when processing a request. This can occur for any of the following reasons:

- A VTAM session failure caused the premature termination of a DB2 conversation.
- A VTAM VARY NET, INACTIVE or HALT NET command was issued which interrupted a DB2 conversation.
- A DB2 internal logic error occurred.

This abend reason code is issued by the following CSECTS:

DSNLCRTR DSNLCSIM DSNLCSND

System Action: A record is written to SYS1.LOGREC and an SVC dump may be requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: If the abend appears to have been caused by a DB2 logic error, determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site as well as any related dumps from each connected site.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3111B

Explanation: The data communications resource manager cannot find the remote location for the requesting thread in the control blocks. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLCSIM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or

similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3111C

Explanation: An internal logic error occurred while invoking a TCP/IP functional service.

This abend reason code is issued by the following CSECT: DSNLInnn

DSNLInnn identifies that a DCRM TCP/IP manager CSECT detected a logic error. Refer to the dump title for the specific CSECT name.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC listing and the SVC dump.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3111F

Explanation: The maximum amount of buffered query data has been exceeded. Rather than return one block of query data, the DRDA server system elected to return multiple extra blocks. Instead of fetching all rows in all the extra blocks, the requesting application executed an SQL statement not related to the query or executed a commit while a held cursor was still open. DB2 buffers the extra in-transit blocks, however DB2 was not able to buffer the entire set of extra blocks and thus truncated the result set. The application then resumed fetching and attempted to fetch data beyond the point of truncation.

System Action: The SQL statement fails.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing application program and consider the following resolutions:

- The cursor definition may cause the server to return extra blocks. In this case, the cursor definition can be changed to reduce the number of rows, thus extra blocks, being returned by the server.

DB2 UDB for z/OS systems return extra blocks for cursors defined with the Optimize For *n* Rows clause and will return only enough extra blocks in order to return *n* rows. When a cursor is defined with Optimize For *n* Rows, either in the application or in a stored procedure, this indicates an application intent to fetch all *n* rows before attempting to execute other SQL statements. The application is not abiding by its intent and is executing other SQL, or committing, prior to fetching all *n* rows. In this case, the cursor definition can be changed to reduce the value of *n*, or the application logic can be modified to fetch all *n* rows or to close the cursor before executing the statement that caused the in-transit data to be buffered.

- The number of extra blocks returned can be controlled by DB2 installation parameters. The maximum number of extra blocks requested by a DB2 requester system is determined by the "Extra Blocks Req" option of the DSNTIP5 DB2 installation panel. This value can be reduced which prevents the server system from returning more blocks than the DB2 requester system can buffer.

Similarly, the server system may also provide a method to regulate the maximum number of extra blocks that it will return to a requester in which case this number can also be reduced. For DB2 UDB for z/OS systems, this is determined by the "Extra Blocks Srv" option of the DSNTIP5 DB2 installation panel.

For information about block fetching result sets, see Part 5 (Volume 2) of *DB2 Administration Guide*.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 14, 17.

00D31201

Explanation: DB2 has detected an inconsistency in the TCP/IP PORT configuration parameter between the DRDA and RSYNC ports. A BIND ipaddr was specified on the DRDA PORT statement in the PROFILE.TCPIP data set but the BIND ipaddr was not specified on the RSYNC PORT statement in the PROFILE.TCPIP data set. When using dynamic virtual IP addresses (VIPA), DB2 requires both the DRDA PORT and RSYNC PORT to be configured to use a VIPA.

System Action: DDF is abnormally terminated.

System Programmer Response: If using dynamic

VIPA to bind to a DB2 PORT number, verify that a VIPA is defined for both the DRDA PORT number and RSYNC PORT number by specifying the BIND ipaddr on the PORT statement in the PROFILE.TCPIP data set used to reserve the PORTs for DB2. If not using dynamic VIPA to bind to DB2 PORT, remove the BIND ipaddr option on the PORT statement in the PROFILE.TCPIP data set used to reserve the PORT numbers for DB2. After fixing the TCP/IP PORT configuration statements, start DDF.

00D31202

Explanation: DB2 has detected an inconsistent change in the TCP/IP PORT configuration parameter for the RSYNC PORT. A BIND ipaddr specified on the RSYNC PORT statement was changed in the PROFILE.TCPIP data set since DDF was started.

System Action: DDF is abnormally terminated. This change may cause outages because of invalid sysplex routing information or commit resynchronization failures due to invalid IP addresses being returned to requesters.

System Programmer Response: Verify the BIND ipaddr specified on the RSYNC PORT number in the TCP/IP PORT statement and start DDF.

00D31203

Explanation: A conversation was not allocated for one of these reasons:

- The LINKNAME was present in the SYSIBM.IPLIST table, but not in SYSIBM.IPNAMES table.
- The IP address that is contained in the IPADDR column of SYSIBM.IPLIST table was also present in the IPADDR column of SYSIBM.IPNAMES table. An IP address can only appear in one of these two tables.

System Action: A record is written to SYS1.LOGREC, and the conversation is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: Make sure the LINKNAME in SYSIBM.IPLIST table is also defined in SYSIBM.IPNAMES table. Make sure the IP address is specified in the IPADDR column of SYSIBM.IPLIST table and a blank value is specified in the IPADDR column of SYSIBM.IPNAMES table.

Problem Determination: collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 86, 87.

00D34401

Explanation: The relational data system (RDS) passed an invalid function code to the distributed RDS (DRDS). This is an internal error.

This abend reason code is issued by the following CSECT: DSNLXRDS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34404

Explanation: The relational data system (RDS) passed the distributed RDS (DRDS) an invalid distributed interface block (DIB). This is an internal RDS error.

This abend reason code is issued by the following CSECT: DSNLXRDS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34405

Explanation: The data communications resource manager (DCRM) passed an invalid LMPP message number to the distributed relational data system (DRDS). This is either an internal DCRM error or an internal DRDS error.

This abend reason code is issued by the following CSECT: DSNLXRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34406

Explanation: The distributed relational data system (DRDS) detected a message of invalid length from the data communications resource manager (DCRM). The message is longer than the buffer size. This is either an internal DRDS error or an internal DCRM error.

This abend reason code is issued by the following CSECTs: DSNLXQPR, DSNLXSQD

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34407

Explanation: The distributed relational data system (DRDS) received an invalid return code from the data communications resource manager (DCRM) on a SEND request. This is a DCRM internal error.

This abend reason code is issued by the following CSECTs:

DSNLXQEX DSNLXQFH DSNLXQOP DSNLXQPR

00D34408 • 00D3440B

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34408

Explanation: The distributed relational data system (DRDS) received an invalid LMPP from the data communications resource manager (DCRM). This is either a DCRM internal error or a DRDS internal error.

This abend reason code is issued by the following CSECTs:

DSNLXOPF DSNLXPCL DSNLXPEX DSNLXPPR
DSNLXPXI DSNLXRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34409

Explanation: The distributed relational data system (DRDS) detected an internal inconsistency. An invalid state transition occurred. This is a DRDS internal error.

This abend reason code is issued by the following CSECTs:

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DSNLXOPF DSNLXQFH DSNLXRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3440B

Explanation: The distributed relational data system (DRDS) detected an inconsistency. This is an internal error.

This abend reason code is issued by the following CSECTs:

DSNLXCMT DSNLXCNV DSNLXCQS DSNLXD5A
DSNLXGET DSNLXIVB DSNLXOPF DSNLXOQS
DSNLXPEX DSNLXPPR DSNLXPRS DSNLXPXI
DSNLXQAL DSNLXQCL DSNLXQEX DSNLXQFH
DSNLXQOP DSNLXQPR DSNLXQR DSNLXQRO
DSNLXQUR DSNLXQXI DSNLXRAP DSNLXRAX
DSNLXRBF DSNLXRCL DSNLXRCM DSNLXRCS
DSNLXRCX DSNLXRCX DSNLXRDS DSNLXRDT
DSNLXRFT DSNLXROP DSNLXRSL DSNLXRSQ
DSNLXRSS DSNLXRTR DSNLXR5W DSNLX5SS

System Action: DB2 writes a SYS1.LOGREC record and requests an SVC dump at the failed DB2 site.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3440C

Explanation: The distributed relational data system (DRDS) requesting site control block must exist at this time but does not. This is an internal DRDS error.

This abend reason code is issued by the following CSECT: DXNLXRDS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3440D

Explanation: The distributed statistics and accounting control block does not exist. This is an internal distributed data facility (DDF) error.

This abend reason code is issued by the following CSECT: DSNLXDSA

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3440E

Explanation: A distributed request was received, but the distributed data facility (DDF) is inactive.

This reason code is issued by the following CSECTs: DSNLXRDS, DSNLXR UW

System Action: The request is not processed.

User Response: Notify the system operator.

Operator Response: Ensure that the DDF has been started.

00D3440F

Explanation: The distributed relational data system (DRDS) detected a message of invalid length from the data communications resource manager (DCRM). The message is smaller than the buffer size, but the return code from the DCRM indicates that the message is greater than one buffer. This is either an internal DRDS error or an internal DCRM error.

This abend reason code is issued by the following CSECTs: DSNLXQPR, DSNLXSQD

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34410

Explanation: The distributed relational data system (DRDS) received an invalid return code from the data communications resource manager (DCRM) on a RECEIVE request. This is an internal DCRM error.

This abend reason code is issued by the following CSECTs: DSNLXQPR, DSNLXQFH

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at

00D34411 • 00D34414

the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34411

Explanation: The distributed relational data system (DRDS) detected an internal inconsistency. An invalid state is specified. This is an internal DRDS error.

This abend reason code is issued by the following CSECTS:

DSNLXOPF DSNLXQFH DSNLXRTR

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34412

Explanation: The distributed relational data system (DRDS) detected an internal inconsistency. An internal buffer offset variable contains an invalid value. This is an internal DRDS error.

This abend reason code is issued by the following CSECT: DSNLXQGT

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis*

Guide and Reference for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34413

Explanation: The data header on the message received from the responding site contains invalid information. This is an internal error.

This abend reason code is issued by the following CSECTS: DSNLXQGT, DSNLXQFH

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34414

Explanation: The relational data system (RDS) did not specify an area for the null indicator of the data. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLXQGT

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34415

Explanation: The input host variable SQLDA format specified in the RDI is not valid. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLXIVB

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34416

Explanation: An incomplete response was received on a conversation when a complete response was expected.

This abend reason code is issued by the following CSECT: DSNLXQFH

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34417

Explanation: DRDS detected an illegal attempt to enter Continuous Block Fetch mode.

This abend reason code is issued by the following CSECT: DSNLXQFH

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34418

Explanation: The remote server was not successfully connected. The SYSIBM.USERNAMES table did not contain an outbound row, the TYPE column specified as an 'O' describing the remote authorization identifier to be used for the plan owner DB2 authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'O' or 'B' requiring outbound name translation, the SYSIBM.USERNAMES table must contain entries describing the remote authorization IDs to be used for each DB2 authorization ID communicating with the LU.

This reason code is issued by the following CSECT: DSNLXQAL

System Action: A resource unavailable is returned to the application. The request is not sent to the remote site.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the remote authorization ID to be used for each possible DB2 authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D34419

Explanation: RDS has passed an invalid DESCRIBE request to DRDS. This is an internal error.

This abend reason code is issued by the following CSECT: DSNLXRDS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3441B

Explanation: DRDS detected an invalid use of a conversation.

This abend reason code is issued by the following CSECT: DSNLXCNV

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3441C

Explanation: Allocation of the distributed processing services block (DPSB) failed.

This abend reason code is issued by the following

CSECTs:

DSNLXCNV DSNLXQCL DSNLXQEX DSNLXQFH
DSNLXQOP DSNLXQPR DSNLXSQD DSNLXQXI

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3441D

Explanation: The distributed relational data system (DRDS) subcomponent has determined that control structures necessary for processing do not exist. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXR UW

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3441E

Explanation: The distributed relational data system (DRDS) subcomponent has determined that the function to be executed is not a valid function. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLXRCM DSNLXRCN DSNLXRCX DSNLXRQX
DSNLXRUW

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected left 20he SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3441F

Explanation: The distributed relational data system (DRDS) subcomponent is in an invalid state and cannot process the function requested. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRUW

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34420

Explanation: The application executed a dynamic COMMIT or ROLLBACK operation while executing in an environment in which DB2 is not coordinating the COMMIT/ROLLBACK process (for example, IMS or CICS). This is an application error.

This abend reason code is issued by the following CSECT: DSNLXRUW

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34422

Explanation: The distributed relational data system (DRDS) subcomponent has received an unexpected return code from the Distributed Transaction Manager (DTM) subcomponent during CONNECT processing. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRCN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34423

Explanation: The distributed relational data system (DRDS) subcomponent has received an unexpected return code from the Distributed Data Interchange Service (DDIS) subcomponent on an invocation to generate a request. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLXPRS DSNLXRAX DSNLXRBF DSNLXRCL
DSNLXRDM DSNLXRDT DSNLXRFT DSNLXRDP
DSNLXRSL DSNLXRSQ

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34424

Explanation: The distributed relational data system (DRDS) subcomponent has received an unexpected return code from the Distributed Data Interchange Service (DDIS) subcomponent on an invocation to parse a reply. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLXRAX DSNLXRBF DSNLXRCL DSNLXRDM
DSNLXRDT DSNLXRFT DSNLXRDP DSNLXRQX
DSNLXRSL DSNLXRSQ

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC

dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34425

Explanation: The distributed relational data system (DRDS) subcomponent has received an unexpected return code from the Data Communications Resource Manager (DC) subcomponent. This is a DB2 internal error.

This abend reason code is issued by the following CSECTs:

DSNLXRAX DSNLXRBF DSNLXRCL DSNLXRDM
DSNLXRDX DSNLXRFX DSNLXRFT DSNLXRDP
DSNLXRQX DSNLXRQX DSNLXRSQ

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34426

Explanation: The distributed relational data system (DRDS) subcomponent has detected an invalid date format in DSNHDECP. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRDM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data

sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34427

Explanation: The distributed relational data system (DRDS) subcomponent has detected an invalid time format in DSNHDECP. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRCM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34429

Explanation: The distributed relational data system (DRDS) subcomponent has detected that the call type in the RDI is invalid. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRSQ

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3442A

Explanation: The distributed relational data system (DRDS) subcomponent has received a return code from the Data Communications Resource Manager (DCRM) indicating that an exit was chained; however, no exit should have been chained. This is a DB2 internal error.

This abend reason code is issued by the following CSECTS:

DSNLXRBF DSNLXRCL DSNLXRFT

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3442B

Explanation: The distributed relational data system (DRDS) subcomponent has received a nonzero SQL return code from an invocation of the parser. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXRCM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets or similar data from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D3442E • 00D34431

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3442E

Explanation: The distributed relational data system (DRDS) subcomponent has detected an inconsistency processing a request using advanced SQL protocols (ASP) of distributed relational database architecture at the local DB2.

The local DB2 has received an ENDUOWRM that indicates that the remote server processed a dynamic COMMIT request successfully; however, the SQLCARD that accompanies the ENDUOWRM contains a negative SQL return code.

This reason code is issued by the following CSECT: DSNLXRAX

System Action: An alert is generated. If this error has not been previously detected, then message DSNL0311 is written to the MVS console and trace record containing the reply from the remote server are written in statistics class 4. If the error was already detected, information from the previous occurrence can be used to diagnose the problem.

During execution the application will receive an SQLCODE +30100 for this operation.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Examine the trace record associated with the failing request's LUWID to determine the reply message and data that was received by the local DB2. Consult with the remote server system programmer to diagnose the problem.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3442F

Explanation: The distributed relational data system (DRDS) subcomponent has detected an inconsistency processing a request using advanced SQL protocols (ASP) of distributed relational database architecture at the local DB2.

The inconsistency may manifest itself as follows:

- In the processing of an embedded SELECT SQL statement, a prior execution of this embedded SELECT SQL statement resulted in a SQLDTARD

that is NOT the same as the SQLDTARD received on the current execution of this SQL statement.

- In the processing of an OPEN cursor SQL statement, a prior description of the resultant data, obtained either as a result of a PREPARE or a prior execution of this SQL statement is NOT the same as the description of the resultant data that was received on the current execution of this SQL statement.

The data length, the data type and CCSID of each column of resultant data is checked for consistency.

This reason code is issued by the following CSECTS: DSNLXROP, DSNLXRSL

System Action: An alert is generated. If this error has not been previously detected, then message DSNL0311 is written to the MVS console and trace record containing the reply from the remote server written in statistics class 4. If the error was already detected, information from the previous occurrence can be used to diagnose the problem.

During execution the application will receive an SQLCODE -30020 for this operation. Subsequent requests within this unit of work will receive an SQLCODE -900 or -906.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Examine the trace record associated with the failing request's LUWID to determine the reply message and data that was received by the local DB2. Consult with the remote server system programmer to diagnose the problem.

At the local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 83.

At the remote server, collect the following items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D34431

Explanation: The distributed relational data system (DRDS) subcomponent encountered an error while processing a FREE package request. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXR UW

System Action: The request was not processed successfully.

00D34432

Explanation: The Distributed Relational Data System (DRDS) subcomponent encountered a positive SQL return code during remote program BIND processing. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXR UW

System Action: The request was successfully processed.

00D34433

Explanation: The distributed relational data system (DRDS) subcomponent encountered a negative SQL return code during remote program BIND processing. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXR UW

System Action: The request was not successfully processed.

00D34434

Explanation: The distributed relational data system (DRDS) subcomponent was forced to deallocate the conversation. This is a DB2 internal error.

System Action: The request was not processed successfully.

00D34436

Explanation: The distributed relational data system (DRDS) subcomponent detected that a remote program BIND request specified the local site. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXR CN

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the BB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D34438

Explanation: The distributed relational data system (DRDS) subcomponent received an invalid SQLD value from the Relational Data System (RDS) component as a result of a DESCRIBE request. This is a DB2 internal error.

This abend reason code is issued by the following CSECT: DSNLXXSS

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the ABENDING agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 ABEND. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3443A

Explanation: The database access request from a remote site failed because the SYSIBM.USERNAMES table did not contain an inbound row, the TYPE column specified as an 'I' describing the DB2 authorization ID to be used for the remote plan owner authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'I' or 'B', requiring inbound name translation, the SYSIBM.USERNAMES table must contain entries describing which DB2 authorization IDs are to be used for each remote authorization ID from the LU.

This abend reason code is issued by the following CSECT: DSNLXALC

System Action: The DSNL030I message is issued at the server. The database access agent is not allocated.

Operator Response: Notify the system programmer.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from the DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the DB2 authorization IDs to be used for every possible remote authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3443B

Explanation: The distributed relational data system (DRDS) subcomponent has detected an inconsistency processing a chained request using advanced SQL protocols (ASP) of distributed relational database architecture at the local DB2.

Examples of inconsistencies follow:

- The local DB2 believes that the chain is intact but the remote server believes that the chain has been severed.
- The local DB2 believes that the chain has been severed but the remote server believes that the chain is intact.
- The local DB2 has received a negative SQL return code while processing a response to BEGIN BIND yet the remote server has not severed the chain.

This reason code is issued by the following CSECTs: DSNLXRCX, DSNLXRQX

System Action: An alert is generated. If this error has not been previously detected, then message DSNL0311 is written to the MVS console and trace record containing the reply from the remote server are written in statistics class 4. If the error was already detected, information from the previous occurrence can be used to diagnose the problem.

During BIND, the application will receive a DSNT5001 message. During execution the application will receive an SQLCODE -904 for this operation. Subsequent requests within this unit of work will receive an SQLCODE -900 or -906.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Examine the trace record associated with the failing request's LUWID to determine the reply message and data that was received by the local DB2. Consult with the remote server system programmer to diagnose the problem.

At the local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 83.

At the remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3443C

Explanation: The distributed relational data system (DRDS) received an invalid return code from the relational data system (RDS) on a string translation request. This is a DRDS internal error.

This reason code is issued by the following CSECT: DSNLXQTD

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 abend.

Operator Response: Notify the system programmer.

System Programmer Response: Determine which sites the abending agent was connected to by examining the DSNL027 and DSNL028 SYSLOG console messages at the site of the DB2 abend. Obtain copies of the SYS1.LOGREC and SYSLOG data sets from each connected site, the SVC dump at the site of the DB2 failure, and any related dumps from each connected site. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3443D

Explanation: The database access request from a remote site failed because the SYSIBM.USERNAMES table did not contain an inbound row, the TYPE column specified as an 'I' describing the DB2 authorization ID to be used for the remote primary authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'I' or 'B' requiring inbound name translation, the SYSIBM.USERNAMES table must contain entries describing which DB2 authorization IDs are to be used for each remote authorization ID from the LU.

This reason code is issued by the following CSECT: DSNLXALC

System Action: The DSNL030I message is issued at the server. The database access agent is not allocated.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the DB2 authorization IDs to be used for every possible remote authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3443E

Explanation: The database access request from a remote site failed because the SYSIBM.USERNAMES table did not contain an inbound row, the TYPE column specified as an 'I' describing the DB2 authorization ID to be used for the remote package owner authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'I' or 'B' requiring inbound name translation, the SYSIBM.USERNAMES table must contain entries describing which DB2 authorization IDs are to be used for each remote authorization ID from the LU.

This reason code is issued by the following CSECT: DSNLXRCS

System Action: The database access agent is not allocated.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the DB2 authorization IDs to be used for every possible remote authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D3443F

Explanation: The remote server was not successfully connected. The SYSIBM.USERNAMES table did not contain an outbound row, the TYPE column specified as an 'O' describing the remote authorization identifier to be used for the package owner DB2 authorization ID. When the USERNAMES column in SYSIBM.LUNAMES specifies 'O' or 'B' requiring outbound name translation, the SYSIBM.USERNAMES table must contain entries describing the remote authorization IDs to be used for each DB2 authorization ID communicating with the LU.

This reason code is issued by the following CSECT: DSNLXRCS

System Action: A resource unavailable is returned to the application. The request is not sent to the remote site.

Operator Response: Notify the communications database administrator.

System Programmer Response: Make sure the USERNAMES column in SYSIBM.LUNAMES has been specified correctly for the indicated LUNAME. If you intend to use remote authorization IDs that differ from DB2 authorization IDs, verify that the SYSIBM.USERNAMES table has rows that correctly specify the remote authorization ID to be used for each

possible DB2 authorization ID.

Problem Determination: Analyze the SYSIBM.USERNAMES table for an incorrect or missing entry.

00D34440

Explanation: A timeout or deadlock was detected during remote bind processing. This can occur during BIND, REBIND, or FREE.

This reason code is issued by the following CSECT: DSNLXRUC

System Action: The BIND is not successful.

User Response: Reissue the BIND subcommand.

System Programmer Response: None is required.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1 on page 1353

00D34443

Explanation: Userid, password not valid in an IMS or CICS environment. An IMS or CICS application issued an SQL CONNECT with userid password.

System Action: The connect request is not processed. The application is placed in the unconnected and connectable state.

00D34444

Explanation: The Userid or Password submitted on a request to CONNECT to the local DB2 exceeded the maximum length supported. The maximum length for each is 8 characters.

System Action: The connect request is not processed. The application is placed in the unconnected and connectable state.

00D34445

Explanation: The distributed relational data system (DRDS) subcomponent detected an error while processing a DDM CNTQRY command received from a remote requester. A previous CNTQRY command specified a QRYROWSET parameter, indicating the number of rows to be returned as a rowset. Because of the blocking limits in effect with the requester, only a partial rowset was returned to the requester and a number of rows in the requested rowset are still unfetched, and thus pending. The DRDA rules require that this subsequent CNTQRY command must specify a QRYROWSET value equal to the pending rows in the rowset or must reset the query blocks from the pending rowset. The CNTQRY command did not specify the QRYRSTBLK parameter to reset the query blocks, and thus this command is assumed to one that completes

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the pending rowset. Since the requested QRYROWSET value does not equal the number of pending rows in the rowset requested by the previous CNTQRY, a DRDA exception is generated.

System Action: A message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the requester system.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the requester system is a DB2 for OS/390 system, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83, 49.

At the DB2 server system generating the DSNL032I message, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83, 49.

00D34446

Explanation: The distributed relational data system (DRDS) subcomponent detected an error while processing a DDM CNTQRY command received from a remote requester. A previous CNTQRY command specified a QRYROWSET parameter, indicating the number of rows to be returned as a rowset. Because of the blocking limits in effect with the requester, only a partial rowset was returned to the requester and a number of rows in the requested rowset are still unfetched, and thus pending. The CNTQRY command being processed specified a QRYRTNDDTA value of FALSE, but the DRDA rules require that this subsequent CNTQRY command must either explicitly or implicitly specify a QRYRTNDDTA value of TRUE. A DRDA exception is detected.

System Action: A message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the requester system.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the requester system is a DB2 for OS/390 system, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83, 49.

At the DB2 server system generating the DSNL032I message, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83, 49.

00D34447

Explanation: The distributed relational data system (DRDS) subcomponent detected an error while processing a DDM CNTQRY command received from a remote requester. If either or both the OPNQRY command and the first CNTQRY command specified QRYROWSET parameter, then all subsequent CNTQRY commands must specify the QRYROWSET parameter explicitly. The CNTQRY command did not specify a QRYROWSET parameter as required by the DRDA rules and a DRDA exception is generated.

System Action: A message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the requester system.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the requester system is a DB2 for OS/390 system, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83, 49.

At the DB2 server system generating the DSNL032I message, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83, 49.

00D34448

Explanation: The distributed relational data system (DRDS) subcomponent detected an error while processing a DDM CNTQRY command received from a remote requester. If both the OPNQRY command and the first CNTQRY command did not specify the QRYROWSET parameter, then all subsequent CNTQRY

commands may not specify the QRYROWSET parameter. The CNTQRY command specified a QRYROWSET parameter which is prohibited by the DRDA rules and a DRDA exception is generated.

System Action: A message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the requester system.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the requester system is a DB2 for OS/390 system, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83, 49.

At the DB2 server system generating the DSNL032I message, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83, 49.

00D34449

Explanation: The distributed relational data system (DRDS) subcomponent detected an error while processing a DDM CNTQRY command received from a remote requester. Scrolling parameters were specified on the CNTQRY command (such as QRYSCRORN, QRYROWNBR, QRYROWSNS, QRYBLKRST, QRYRTNDTA) but either the cursor is not scrollable or the cursor is scrollable but is being accessed by the requester in a non-scrollable manner (both the OPNQRY command and the first CNTQRY command did not specify the QRYROWSET parameter). A DRDA exception is generated.

System Action: A message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the requester system.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number

enumerated in the DSNL032I message should be analyzed.

If the requester system is a DB2 for OS/390 system, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83, 49.

At the DB2 server system generating the DSNL032I message, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83, 49.

00D3444A

Explanation: The distributed relational data system (DRDS) subcomponent detected an error while processing a DDM CNTQRY command received from a remote requester. The CNTQRY is fetching data from a scrollable cursor which is being accessed in a scrollable manner by the requester. The CNTQRY command will return one or more LOB columns as LOB data, but the RTNEXTDTA parameter on the CNTQRY command (indicating how LOB values are to be returned) did not specify RTNEXTALL as required by the DRDA rules. A DRDA exception is generated.

System Action: A message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the requester system.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the requester system is a DB2 for OS/390 system, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83, 49.

At the DB2 server system generating the DSNL032I message, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83, 49.

00D3444D

Explanation: The distributed relational data system (DRDS) subcomponent detected an error. This is a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested at the site of the DB2 ABEND.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 56, 57.

00D3444E

Explanation: The stored procedure result set contains an unsupported data type.

System Action: The stored procedure call fails.

Programmer Response: Modify the stored procedure to return result sets that include only data types that are supported by the requester. You may also upgrade the level of the code at the requester to one that supports the data types that were returned by the server.

00D35000

Explanation: DB2 has detected a DRDA exception condition. This is a generic reason code that describes a situation not covered by any other reason codes.

This reason code is issued by the following CSECT: DSNLZxxx

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at the local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35030

Explanation: DB2, acting as a DRDA server, detected an error while processing an SQL request from a remote DRDA client. DB2 was building a DDM query descriptor (QRYDSC or FDODSC) to return to the DRDA client, but could not do so because the descriptor

required more late environment descriptors (LEDs) than DB2 can support.

System Action: The DBAA is abended. The conversation with the remote site is terminated. At the server console, the DSNL027I message is issued, accompanied by one or more DSNL028I messages identifying all remote sites where the distributed agent also exists and where diagnostic information might also be collected.

User Response: The SQL request issued by the client cannot be processed by DB2. As a circumvention, the SQL request can be simplified to reduce the number of LEDs required to describe the data using DRDA. LEDs may be required, for example, if columns being fetched are in a different code page (CCSID) than the default CCSID for the DB2 for MVS system.

Operator Response: Notify the application programmer or user creating the SQL statement.

If the remote DRDA client is a DB2 for MVS system, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

This abend reason code is issued by the following CSECT: DSNLZSRD.

00D35101

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM level 6b object, other than a Reply DSS or an Object DSS, is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items

listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35102

Explanation: DB2 has detected an error in the DDM reply data object received from the remote server in response to a DDM command. The object, carried in a level 6b OBJDSS, is not defined as valid for DDM level 3.

This reason code is issued by the following CSECT:
DSNLZRPA

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30072 and SQLSTATE 58016.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35103

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. Multiple instances of a DDM reply data object, defined within DDM level 3 as nonrepeatable, have been returned.

This reason code is issued by the following CSECT:
DSNLZRPA

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35104

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The reply data object is not defined by DRDA.

This reason code is issued by the following CSECT:
DSNLZRPA

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30071 and SQLSTATE 58015.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics Class 4 trace record identified by the IFCID sequence number specified in message DSNL0311.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35105

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. While defined by DDM Level 3 as a valid reply object for this command, DB2 does not support the object.

00D35106 • 00D35108

This reason code is issued by the following CSECT:
DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35106

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The object must be contained within a single OBJDSS, but was received in an OBJDSS which contained other objects. The object must be contained within a single DSS but was received in a DSS which contained other DDM objects.

This reason code is issued by the following CSECT:
DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic

items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35107

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. One or more DDM reply data objects, defined by DDM Level-3 as required for the DDM command, were not received.

This reason code is issued by the following CSECT:
DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35108

Explanation: DB2 has detected an error in the DDM SQLDTARD reply data object received in response to a DDM EXCSQLSTT command. The SQL operation is a SELECT and the size of the FDODSC scalar, contained within the SQLDTARD, exceeds 32KB. The DDM extended length field required to support this is invalid. The SQL operation is a SELECT and the size of the FDODSC object, contained within the SQLDTARD collection, exceeds 32KB. The DDM extended length field required to support this is invalid.

This reason code is issued by the following CSECT:
DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35109

Explanation: DB2 has detected an error in the DDM SQLDTARD reply data object received in response to a DDM EXCSQLSTT command. The DDM SQLDTARD object is a collection consisting of the FDODSC and FDOTA scalars. The FDODSC scalar, describing a single row returned on SELECT, is not contained with the SQLDTARD reply data object. The DDM SQLDTARD object is a collection which contains the FDODSC and FDOTA DDM objects. The FDODSC element, describing the single row, is not contained within the SQLDTARD reply data object.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3510A

Explanation: DB2 has detected an error in the DDM SQLDTARD reply data object received in response to a DDM EXCSQLSTT command. The DDM SQLDTARD object is a collection consisting of the FDODSC and FDOTA scalars. The FDOTA scalar, containing the single row described by the FDODSC, is not contained within the SQLDTARD reply data object. The DDM SQLDTARD object is a collection which contains the FDODSC and FDOTA DDM objects. The FDOTA element, containing the single row, is not contained within the SQLDTARD reply data object.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3510B

Explanation: DB2 has detected an error in the DDM SQLDTARD reply data object received in response to a DDM EXCSQLSTT command. The SQL operation is a SELECT and the size of the resultant row, contained with the FDOTA scalar, exceeds 32KB. The FDOTA DDM extended length field required to support this is invalid. The SQL operation is a SELECT and the size of the resultant row exceeds 32KB. The DDM extended length field required to support this is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3510C

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The SQL operation is a SELECT and the size of the SQLDTARD, a DDM collection consisting of the FDODSC and FDOTA scalars, SQLDTARD is greater than the sum of the lengths of the constituent FDODSC and FDOTA scalars. The object is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3510D

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is a TYPDEFNAM signaling a change in machine representation. The length of the DDM object is incorrect.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3510E

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is a TYPDEFNAM signaling a change in machine representation. The value of the DDM object specifies a machine environment which is not supported by DRDA.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace

record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3510F

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is a TYPDEFOVR collection signaling a remote server change in CCSIDs. The length of one of the constituent scalars, CCSIDSBC, CCSIDMBC or CCSIDDBC is incorrect.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35110

Explanation: DB2 has detected an error in the DDM TYPEDEFOVR reply data object received from the remote server in response to a DDM command, signaling a change in the remote server CCSIDs. The TYPEDEFOVR contains multiple occurrences of the CCSIDSBC scalar (SBCS CCSID). This is an error. The DDM object is a TYPDEFOVR collection signaling a remote server change in CCSIDs. The CCSIDSBC (SBCS CCSID) code point is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35111

Explanation: DB2 has detected an error in the DDM TYPEDEFOVR reply data object received from the remote server response to a DDM command, signaling a change in the remote server CCSIDs. The TYPEDEFOVR contains multiple occurrences of the CCSIDSBC scalar (MIXED CCSID). This is an error. The DDM object is a TYPDEFOVR collection signaling a remote server change in CCSIDs. The CCSIDMBC (MIXED CCSID) code point is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic

items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35112

Explanation: DB2 has detected an error in the DDM TYPEDEFOVR reply data object received from the remote server in response to a DDM command, signaling a change in the remote server CCSIDs. The TYPEDEFOVR contains multiple occurrences of the CCSIDSBC scalar (GRAPHIC CCSID). This is an error. The DDM object is a TYPDEFOVR collection signaling a remote server change in CCSIDs. The CCSIDDBC (GRAPHIC CCSID) code point is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35113

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is a TYPDEFOVR collection signaling a remote server change in CCSIDs. The DDM object length is invalid.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35114

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The length of the DDM reply message is inconsistent with the length of its DSS carrier.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35115

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The sum of the lengths of the constituent DDM objects

within an OBJDSS is inconsistent with the length of the DSS carrier.

This reason code is issued by the following CSECT:
DSNLZRPA

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL0311.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35116

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM reply message is not valid for the current command.

This reason code is issued by the following CSECT:
DSNLZRPA

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL0311.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35117

Explanation: DB2 has detected an error in the SQLDTARD reply data object received in response to an EXCSQLSTT DDM command. The FDOTA element of the SQLDTARD collection contains a null SQLDTAGRP containing no data and a null SQLCAGRP, indicating that the SQL SELECT operation was successful. This is an inconsistency.

This reason code is issued by the following CSECT:
DSNLZRPA

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL0311.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35118

Explanation: DB2 detected an error in the DDM reply data object received from the application server (AS) in response to a DDM command. The DDM minimum level attribute of the reply data object (that is, the level of DDM required to support the object) exceeds the DDM level of the AS specified during CONNECT processing.

This reason code is issued by the following CSECT:
DSNLZRPA

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application receives SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number included in the DSNL0311 message.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353:

00D35119

Explanation: DB2 detected an error in the DDM reply message received from the application server (AS) in response to a DDM command. The DDM minimum level attribute of the reply message (that is, the level of DDM required to support the reply message) exceeds the DDM level of the AS specified during CONNECT processing.

This reason code is issued by the following CSECT:
DSNLZRPA

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application received SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number included in the DSNL0311 message.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3511A

Explanation: DB2 has detected an error in the DRDA summary component received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The DRDA summary component should consist of the DDM RSLSETRM reply message, a DDM SQLCARD or SQLDTARD reply data object, and a DDM SQLRSLRD reply data object. Neither the SQLCARD nor the SQLDTARD is contained in the summary component.

This reason code is issued by the following CSECT:
DSNLZRPA.

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL0311.

At the DB2 requester, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83.

If the DRDA server is DB2 UDB for z/OS, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D3511B

Explanation: DB2 has detected an error in the DRDA summary component received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The DRDA summary component should consist of the DDM RSLSETRM reply message, a DDM SQLCARD or SQLDTARD reply data object, and a DDM SQLRSLRD reply data object. The SQLRSLRD object is not contained in the summary component.

This reason code is issued by the following CSECT:
DSNLZRPA.

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL0311.

At the DB2 requester, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83.

If the DRDA server is DB2 UDB for z/OS, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1

00D3511C

Explanation: DB2 has detected an error in the DRDA summary component received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The DRDA summary component should consist of the DDM RSLSETRM reply message, a DDM SQLCARD or SQLDTARD reply data object, and a DDM SQLRSLRD reply data object. The SQLRSLRD reply data object was not preceded by the RSLSETRM reply message.

This reason code is issued by the following CSECT: DSNLZRPA.

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL0311.

At the DB2 requester, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83.

If the DRDA server is DB2 UDB for z/OS, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D3511D

Explanation: DB2 has detected an error in the DRDA summary component or the DRDA result set component received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The DRDA summary component should consist of the DDM RSLSETRM reply message, a DDM SQLCARD or SQLDTARD reply data object, and a DDM SQLRSLRD reply data object. The DRDA result set component should consist of at least the DDM OPNQRYRM reply message and the DDM QRYDSC reply data object. The OPNQRYRM message is not present following the SQLRSLRD object.

This reason code is issued by the following CSECT: DSNLZRPA.

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL0311.

At the DB2 requester, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83.

If the DRDA server is DB2 UDB for z/OS, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D351FF

Explanation: DB2 received a DDM reply message from the remote server in response to a DDM command. The reply message, while valid for the DDM command, indicates that the DDM command and hence the SQL statement was not successfully processed. The application is notified of the failure through the architected SQLCODE (-300xx) and associated SQLSTATE.

This reason code is issued by the following CSECT: DSNLZRPA

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

00D35201 • 00D35203

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number included in the DSNL0311 message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL0311.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35201

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is the FDODSC element of an SQLDTARD. The size of the FDODSC is greater than 32KB and the DDM level 6b extended length field is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35202

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the

FDODSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. The SQLCADTA row (RLO) MDD is either invalid or has not been included within the SQLDTARD descriptor. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35203

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDODSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. The SQLCADTA row triplet (RLO) is either invalid or has not been included with the SQLDTARD descriptor.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35204

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDOFSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. Either the first component of the SQLCADTA row is other than an SQLCAGRP (early) group or the number of elements taken from the SQLCAGRP or SQLCAGRP replication factor (or both) are incorrect. The descriptor is invalid. The DDM object is either a QRYDSC or the FDOFSC element of the SQLDTARD collection. The FDOCA geometry is incorrect. The first elements of the row are other than the elements of the early SQLCAGRP. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35205

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDOFSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. The first component of the SQLCADTA row correctly enumerates the elements of the SQLCAGRP; however, the second component, identifying the SQLDTAGRP (late) group is incorrect. Either the SQLTAGRP local identifier (LID) is different than the LID of the SQLDTAGRP previously specified or

the number of elements taken from the SQLDTAGRP replication factor (or both) are incorrect. The descriptor is invalid. The DDM object is either a QRYDSC or the FDOFSC element of the SQLDTARD collection. The FDOCA geometry is incorrect. The first elements of the row correctly enumerate the elements of the early SQLCAGRP, however, the local identifier (LID) following the SQLCAGRP LID is different than the LID of the SQLDTAGRP group previously specified. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35206

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDOFSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. One or more late environmental descriptors is included within the previously specified SQLDTAGRP late group descriptor. However, SQLDTARD row (RLO) Meta Data Definition (MDD) is either incorrect or has not been included within the SQLDTARD descriptor. The descriptor is invalid. The DDM object is either a QRYDSC or the FDOFSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. One or more late environmental descriptors have been included within the previously processed SQLDTAGRP group. However, the Meta Data Definition (MDD) of the SQLDTARD row (RLO) has not been included within the descriptor. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35207

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDODSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. Either the SQLDTARD is specified as other than a row triplet (RLO) or the SQLDTARD RLO triplet length is invalid. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic

items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35208

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDODSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. Either the SQLCADTA LID referenced within the SQLDTARD RLO did not match the LID defined within the SQLCADTA RLO or the number of elements or replication factor (or both) within the SQLDTARD RLO was non zero. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If this DB2 is the AR for the thread, the DDM object received is an SQLDTA or QRYDSC. The application will receive SQLCODE -30000 and SQLSTATE 58008. If this DB2 is a remote server for the thread, the DDM object received is SQLDTA. DSCINVRM will be returned to the AR.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at the local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35209

Explanation: DB2 has detected an error in the QRYDSC or SQLDTARD reply data object received in response to an OPNQRY or EXCSQLSTT DDM command. The DDM object is either a QRYDSC or the FDODSC scalar of the SQLDTARD collection. The FDOCA geometry is incorrect. Either the length is specified in the LL preceding the QRYDSC or FDODSC

is greater than the length of the OBJDSS carrier or the length of one of the constituent geometries (triplet lengths) is inconsistent with the length of the QRYDSC or FDODSC. The descriptor is invalid.

This reason code is issued by the following CSECT:
DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3520A

Explanation: DB2 has detected an error in the SQLDTARD reply data object received in response to an EXCSQLSTT DDM command. The DDM object is the FDODSC scalar of the SQLDTARD collection and is contained within multiple DDM Level 6b OBJDSS carriers. The descriptor is invalid. The DDM object is the FDODSC scalar of the SQLDTARD collection. The SQLDTARD is contained in multiple level 6b object DSSs. The descriptor is invalid.

This reason code is issued by the following CSECT:
DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number

enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3520B

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is a QRYDSC returned from an OPNQRY command which spans multiple DDM level 6b DSSs. One or more of the containing level 6b DSSs is (are) other than an object (OBJ) DSS. The descriptor is invalid.

This reason code is issued by the following CSECT:
DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3520C

Explanation: DB2 has detected an error in the DDM reply message or DDM reply data object received from the remote server in response to a DDM command. The DDM object is a QRYDSC returned from an OPNQRY command which spans multiple DDM level 6b object DSSs. One or more of the DDM code points within the containing object DSSs is (are) other than QRYDSC (X'241A'). The descriptor is invalid.

This reason code is issued by the following CSECT:
DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3520D

Explanation: DB2 has detected an error in the QRYDSC reply data object received in response to an OPNQRY DDM command. The QRYDSC contained in one or more query blocks is incomplete, i.e., the entire QRYDSC has not been returned in response to the OPNQRY command.

This reason code is issued by the following CSECT: DSNLZRDS

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3520E

Explanation: DB2 has detected an error in the DDM QRYDSC or the DDM SQLCINRD reply data object received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The number of columns described by the QRYDSC object is inconsistent with the number of columns described by the DDM SQLCINRD object.

This reason code is issued by the following CSECT: DSNLZRDS.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83.

If the DRDA server is DB2 UDB for z/OS, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D35301

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The reply message code point is not supported by DDM Level 3.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number

enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35302

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The reply message contains one or more constituent instance variables whose code point is not supported by DDM Level 3.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35303

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The length of the reply message is greater than the sum of the lengths of the constituent instance variables.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35304

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. One or more instance variables, specified by DDM Level 3 as required for this reply message, is (are) not contained within the reply message.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35305

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The length of the reply message exceeds the sum of the lengths of all the constituent instance variables.

00D35306 • 00D35308

This reason code is issued by the following CSECT:
DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35306

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The length of the RDBNAM instance variable is 18 bytes as specified by DDM Level 3, however, bytes 17 and 18 are non blank. DB2 supports only a 16 byte RDBNAM.

This reason code is issued by the following CSECT:
DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35307

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The value of the DDM enumerated value instance variable, DTALCKST is other than TRUE (X'F1') or FALSE (X'F0').

This reason code is issued by the following CSECT:
DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35308

Explanation: DB2 has detected an error in the MGRLVLRM reply message received from the remote server in response to the EXCSAT DDM command. The MGRLVL specified is not supported by DB2. DB2 supports the following DDM Level 3 managers: CMNAPPC, SUPERVISOR, SECMGR, AGENT, DIRECTORY, SQLAM, and RDB.

This reason code is issued by the following CSECT:
DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number

enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35309

Explanation: DB2 has detected an error in the ACCRDBRM reply message received from the remote server as in response to the ACCRDB command. The length of the PRDID instance variable is invalid.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3530A

Explanation: DB2 has detected an error in the ACCRDBRM reply message received from the remote server in response to ACCRDB DDM command. DB2 is currently disabled to connect to the server specified by the value of the PRDID instance variable.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3530B

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM OPNQRS command. The value of the enumerated instance variable, QRYPRCTYP, is other than SNGROWPRC or LMTBLKPRC.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58017.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3530C

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The value of the severity code (SVRCOD) instance variable, as specified by DRDA, is not valid for this reply message.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3530D

Explanation: DB2 has detected an error in the ACCRDBRM reply message received from the remote server in response to ACCRDB DDM command. The DDM TYPDEFOVR instance variable, a collection, contains a scalar instance variable other than CCSIDSBC, CCSIDMBC or CCSIDDBC.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3530E

Explanation: DB2 has detected an error in the ACCRDBRM reply message received from the remote server in response to the ACCRDB DDM command. The length of the TYPDEFOVR instance variable, a collection, is different than the sum of the lengths of the constituent scalar instance variables.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3530F

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The length of a DDM fixed length collection or scalar is different than that specified by DDM Level 3.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number

enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35310

Explanation: DB2 has detected an error in the DDM reply message received from the remote server in response to a DDM command. The length of a DDM variable length collection or scalar is different than that specified by DDM Level 3.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35311

Explanation: DB2 detected an error in the DDM reply message received from the application server (AS) in response to a DDM EXCSQLIMM or EXCSQLSTT command. The AS DDM level specified during CONNECT is 4 and an ENDUOWRM was returned signaling that a dynamic COMMIT or ROLLBACK was performed. The correct response from an AS supporting DDM Level 4 is the CMMRQSRM reply message.

This reason code is issued by the following CSECT: DSNLZRPY

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application receives SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number included in the DSNL0311 message.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35401

Explanation: DB2 detected an error in the DDM SQLCARD reply data object received from the remote server in response to a DDM command. The object contains nonzero lengths for both the SQLERRMSG_m and SQLERRMSG_s elements as described by the SQLCAXGRP early group descriptor. This is invalid as specified by DRDA.

This reason code is issued by the following CSECT: DSNLZRCA

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number identified in the DSNL0311 message.

00D35501

Explanation: DB2 has detected an error in the DDM SQLDARD reply data object received from the remote server in response to a DDM PRPSQLSTT command. The value of the single element of the SQLNUMGRP, SQLNUM, defining the total number of SQLDAROW occurrences within the SQLDARD array, is either negative or is inconsistent with the size of the SQLDARD array.

This reason code is issued by the following CSECT: DSNLZRDA

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System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35502

Explanation: DB2 has detected an error in the DDM SQLDARD reply data object received from the remote server in response to a DDM PRPSQLSTT command. Within one or more SQLDAROW occurrences, either (a) the lengths of SQLNAME_m and SQLNAME_s are both non-0, or (b) the lengths of SQLLABEL_m and SQLLABEL_s are both non-0, or (c) the lengths of SQLCOMMENTS_m and SQLCOMMENTS_s are both non-0. The data is invalid with regard to the Early SQLDAGRP group descriptor as defined by DRDA.

This reason code is issued by the following CSECT: DSNLZRDA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic

items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35601

Explanation: DB2 has detected an error in command data received from a local DB2, or reply data received from the remote server in response to a DDM command. The command or reply data is described by either an FDOCA early or late descriptor. Any Late descriptors have been previously validated. The data currently being retrieved from the data stream is described by a simple data Array (SDA) defining variable length data whose length is given by a 2 byte length field. The value of the length field is either negative or greater than the maximum length specified by the SDA. The data is inconsistent with the descriptor.

This reason code is issued by the following CSECT: DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within reply data, then the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within command data, a DDM DTAMCHRM reply message will be returned to the AR.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35602

Explanation: DB2 has detected an error in a SQLSTT, SQLSTTVRB, SQLOBJNAM or SQLDTA data object received from a local DB2. The length of the data to be retrieved from the data stream is defined by an SDA which is part of an early or late descriptor. The length exceeds the length of remainder of the OBJDSS carrier of the command data object. The data is inconsistent with the descriptor.

This reason code is issued by the following CSECT: DSNLZFDT

System Action: An alert is generated and message

DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM DTAMCHRM reply message will be returned to the AR.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35603

Explanation: DB2 has detected an error in SQLCARD, SQLDARD, or SQLDTARD reply data object received from an remote server in response to a DDM command. The reply data is described by either the SQLCAGRP or SQLDAGRP early descriptors or the SQLDTAGRP (contained within a SQLDTARD) late descriptor. The length of the data to be retrieved is specified by the default length of a constituent SDA within the SQLCAGRP or SQLDAGRP early groups or the SDA length specification within the SQLDTAGRP late group. All OBJDSSs received in response to the DDM command have been processed but the SQLCARD, SQLDARD, or SQLDTARD is incomplete. These must be returned in their entirety. The data is inconsistent with the descriptor.

This reason code is issued by the following CSECT: DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items

listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35604

Explanation: DB2 has detected an error in SQLCARD, SQLDARD, or SQLDTARD reply data object received from an remote server in response to a DDM command. The reply data is described by either the SQLCAGRP or SQLDAGRP early descriptors or the SQLDTAGRP (contained within a SQLDTARD) late descriptor. The length of the data to be retrieved is specified by the default length of a constituent SDA within the SQLCAGRP or SQLDAGRP early groups or the SDA length specification within the SQLDTAGRP late group. The carrier OBJDSS has been exhausted but the complete object has not been assembled. The object must be contained in exactly one OBJDSS carrier. This is not the case and the data is inconsistent with the descriptor.

This reason code is issued by the following CSECT: DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35605

Explanation: DB2 has detected an error in a QRYDTA reply data object received from the remote server in response to a DDM OPNQRY or CNTQRY command. The reply data, described by an SQLDTARD late descriptor carried in a DDM QRYDSC reply data object, has been previously validated. The reply data spans multiple query blocks, each of which are contained in a level 6b DSS. One or more of the containing level 6b

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DSSs is other than a DDM level 6b object DSS. This is invalid.

This reason code is issued by the following CSECT:
DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35606

Explanation: DB2 has detected an error in a QRYDTA reply data object received from the remote server in response to a DDM OPNQRY or CNTQRY command. The reply data, described by an SQLDTARD late descriptor carried in a DDM QRYDSC reply data object, has been previously validated. The reply data spans multiple query blocks, each of which are contained in a level 6b Object DSS (OBJDSS). The code points of one or more of the DDM reply data objects is other than QRYDTA (X'241B'). This is invalid.

This reason code is issued by the following CSECT:
DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35607

Explanation: DB2 has detected an error in a QRYDTA reply data object received from a remote server in response to a DDM OPNQRY or CNTQRY. The cursor is being processed with single row protocols (SNGROWPRC). The QRYDTA may span multiple query blocks but must be returned in its entirety. This is not the case.

This reason code is issued by the following CSECT:
DSNLZFDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35608

Explanation: DB2 has detected an error in a QRYDTA reply data object received from the remote server in response to a DDM OPNQRY or CNTQRY command. The reply data, described by an SQLDTARD late descriptor carried in a DDM QRYDSC reply data object, has been previously validated. The current data to be retrieved from the QRYDTA is described by an SDA defining Null-Terminated data (DRDA types X'2C', X'2D', X'2E', X'2F', X'42' or X'43'). The null terminator cannot be located within the reply data. The data is inconsistent with the descriptor defined by the QRYDSC.

This reason code is issued by the following CSECT:
DSNLZFDT

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35609

Explanation: DB2 detected an error in conversion of numeric data. Possible scenarios are: floating point conversion overflow, or digits of numeric character out of range.

This reason code is issued by the following CSECT:
DSNLZFDT

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

The application receives SQLCODE -30073 and SQLSTATE 58017.

User Response: Check your numeric data. If you are connecting to DB2 via a non-S/370 type machine, overflow can occur when the floating point value is out of the System/370 floating point range. Refer to Appendix A of *DB2 SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL0311.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35701

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within either the DRDA SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The late descriptor includes late environmental descriptors and the SQLDTAGRP meta data definition (MDD) is either invalid or has not been included within the descriptor. The descriptor is invalid.

This reason code is issued by the following CSECT:
DSNLZGDT

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the AR.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35702

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within either the DRDA SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The SQLDTAGRP triplet is not defined as an FDOCA nullable group. The descriptor is invalid.

This reason code is issued by the following CSECT:
DSNLZGDT

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within

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the DDM SQLDTA object, a DSCINVRM reply message will be returned to the AR.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35703

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within either the DRDA SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The local identifier (LID) of one of the SQLDTAGRP constituent triplets has not been previously defined by a late environmental descriptor and the LID is outside of the bounds of the default environmental descriptor LIDs (LID > X'49'). Note that the default LIDs are identical to the DRDA types. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the AR.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35704

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within either the DRDA SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The local identifier (LID) of one of the constituent SQLDTAGRP SDAs has either not been previously defined by a late environmental descriptor, or is not a valid default LID. Note that the default LIDs are identical to the DRDA types. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35705

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor contained within either the DRDA SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD reply data object, or the SQLDTA command data object. The FDOCA geometry is incorrect. All the OBJDSS carriers have been processed and the SQLDTAGRP has not been assembled. The SQLDTAGRP is incomplete and the descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: If the error occurs within the QRYDSC or SQLDTARD reply data object, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35706

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within the DRDA SQLDTARD or SQLDTA late descriptors. The DDM object is either an SQLDTARD or SQLDTA and must be contained within a single OBJDSS. The descriptor, as defined by the length of the SQLDTARD or SQLDTA DDM objects, is incomplete and is therefore invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the SQLDTARD DDM object, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35707

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within the DRDA SQLDTARD late descriptor. The DDM object is a QRYDSC spanning multiple query blocks and DDM Level 6b DSSs. One or more of the containing level 6b DSSs is other than an object (OBJ) DSS. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

the application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35708

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within the DRDA SQLDTARD late descriptor. The DDM object is a QRYDSC spanning multiple query blocks and DDM level object 6b DSSs. The code point of one or more of the containing DDM objects is other than QRYDSC (X'241B'). The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

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the application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35709

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor contained within a QRYDSC DDM object. The FDOCA geometry is incorrect. The SQLDTAGRP length specification exceeds the size of the QRYDSC level 6b DSS carrier. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D3570A

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within either the DRDA SQLDTARD or SQLDTA late descriptors. The DDM object is one of the following: QRYDSC, SQLDTARD or SQLDTA. The length override value in one of the constituent SQLDTAGRP SDAs is a placeholder length value, but an allowable placeholder length was not received. This is invalid.

This reason code is issued by the following CSECT: DSNLZGDT

System Action: An alert is generated and message DSNL032I is written to the console if the error is detected while parsing a command or message DSNL031I is written to the console if the error is detected while parsing a command reply. Refer to the description of this message for further information.

If the error occurs within a QRYDSC or SQLDTARD DDM object, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DCINVRM reply message will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3570B

Explanation: DB2 has detected an error while processing the SQLDTAGRP late group descriptor, contained within the DRDA SQLDTA late descriptor. The DDM object is the OUTOVR object. A non-zero local identifier (LID) was received as an output override descriptor, but the LID value was not one of the values allowed for the current DRDA level (DRDA Level 4). This is invalid.

This reason code is issued by the following CSECT:
DSNLZGDT

System Action: An alert is generated and message DSNL032I is written to the console if the error is detected while parsing a command. Refer to the description of this message for further information.

A DSCINVRM reply message will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35801

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor, contained within either the SQLDTARD or SQLDTA late descriptors. The DDM object is a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The late environmental descriptor meta data definition does not specify a valid DRDA type. The SDA and the entire descriptor are invalid.

This reason code is issued by the following CSECT:
DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace

record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35802

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor contained within either the SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD reply data object, or an SQLDTA command data object. The FDOCA geometry is incorrect. The late environmental descriptor meta data definition (MDD) either specifies a local identifier (LID) of 0 or defines a nonrelational database application class (other than X'05') or the meta data reference type is other than X'01'. The MDD and the entire descriptor are invalid.

This reason code is issued by the following CSECT:
DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35803

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor,

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contained within either the SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The late environmental descriptor meta data definition (MDD) is valid, however, the descriptor following the MDD is either not an SDA or is an SDA with a length other than 12 (X'0C'). The SDA and the entire descriptor are invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35804

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor, contained within either the SQLDTARD or SQLDTA late descriptors. The DDM object is either a QRYDSC, SQLDTARD or SQLDTA. The FDOCA geometry is incorrect. The late environmental descriptor meta data definition (MDD) is valid, however, the SDA immediately following the MDD is overriding a DRDA type not supported by DRDA. The SDA and the entire descriptor are invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within

the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35805

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor contained within either the SQLDTARD or SQLDTA late descriptors. The DDM object is a QRYDSC, SQLDTARD, or an SQLDTA data object. The FDOCA geometry is incorrect. The size of the late environmental descriptors exceeds the size of the DDM level 6b DSS carrier. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If the error occurs within a QRYDSC or SQLDTARD replay data object (SQLDTARD late descriptor), the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within an SQLDTA command data object (SQLDTA late descriptor), a DSCINVRM reply message will be returned to the local DB2.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35806

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor, contained within either the SQLDTARD or SQLDTA late descriptors. The DDM object is either an SQLDTARD or SQLDTA, each of which may not span DDM level 6b object (OBJ) DSSs. The containing level 6b OBJDSS contains only late environmental descriptors and neither groups or rows are defined. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35807

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor, contained within the SQLDTARD late descriptor. The DDM object is a QRYDSC which spans multiple query blocks. One or more of the containing level 6b DSSs is (are) other than an object (OBJ) DSS. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message

DSNL0311 is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35808

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor, contained within the SQLDTARD late descriptor. The DDM object is a QRYDSC which spans multiple query blocks. One or more of the code points of the DDM objects carrying the descriptor is (are) other than QRYDSC (X'241B'). The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

If the error occurs within the QRYDSC or SQLDTARD DDM objects, the application will receive SQLCODE -30000 and SQLSTATE 58008. If the error occurs within the DDM SQLDTA object, a DSCINVRM reply message will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At this local DB2, collect the following diagnostic items

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listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35809

Explanation: DB2 has detected an error while processing late environmental descriptors which precede the SQLDTAGRP late group descriptor contained within the SQLDTARD late descriptor. This late descriptor is within a QRYDSC which spans one or more query blocks. The QRYDSC contains only late environmental descriptors and is, therefore, incomplete.

This reason code is issued by the following CSECT: DSNLZLEP

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant remote server trace information or dumps.

00D35901

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. A reply DSS (RPYDSS) has been received from the local DB2. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35902

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The first level 6b DSS received is an object DSS. The DDM command carried in a level 6b request DSS (RQSDSS) must be the first level 6b DSS received.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35903

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The first level 6b DSS received is neither a request (RQS) DSS, Object (OBJ) DSS nor Reply (RPY) DSS and is invalid.

This reason code is issued by the following CSECT:
DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35904

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The DDM command, specified by the code point contained within the level 6b RQSDSS, is invalid or not supported by DDM Level 3.

This reason code is issued by the following CSECT:
DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (CMDNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35905

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The first DDM command received on this conversation, while a valid DDM Level 3 command, is other than EXCSAT. The first command must be EXCSAT.

This reason code is issued by the following CSECT:
DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35906

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The EXCSAT command has been successfully processed but the current DDM command, while supported by DDM Level 3 and DB2, has been sent prior to ACCRDB. The only valid command prior to ACCRDB is another EXCSAT command.

This reason code is issued by the following CSECT:
DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (RDBNACRM) will be returned to the local DB2.

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Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35907

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from an local DB2. the ACCRDB command has been successfully processed and the current command is another ACCRDB instance. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (RDBACCRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35908

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from an local DB2. The state of the DB2 remote server is in 'BIND processing' and the current DDM command is other than BNDSQLSTT, ENDBND, RDBCMM or RDBRLLBCK.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PKGBPARM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35909

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from an local DB2. The DDM command has been successfully processed, however, one or more of the level 6b DSSs are other than object (OBJ) DSSs. The only valid level 6b DSS chain is a single RQS DSS, followed by one or more OBJ DSSs.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic

items listed in Appendix B, “Problem determination,” on page 1353: 1, 49.

00D3590A

Explanation: DB2 has detected an error while parsing DDM command data received from a local DB2. The DDM command data object, as defined by the DDM code point, is either invalid or not valid for this command, as specified by DDM level 3.

This reason code is issued by the following CSECT:
DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (OBJNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this DB2 local DB2, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 49.

00D3590B

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. One or more DDM command data objects, defined as required by DDM Level 3, were not received with the DDM command.

This reason code is issued by the following CSECT:
DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace

record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 49.

00D3590C

Explanation: DB2 has detected an error while parsing DDM command data received from a local DB2. The DDM object is a TYPDEFNAM, signaling a change in machine representation from the local DB2, however, the length, as specified by DDM level 3, is incorrect.

This reason code is issued by the following CSECT:
DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 49.

00D3590D

Explanation: DB2 has detected an error while parsing a DDM command data object received from a local DB2. The DDM object is a TYPDEFNAM, signaling a change in machine representation from the local DB2, however, the value of this DDM scalar is other than QTDSQL370, QTDSQLX86 or QTDSQL400. These are the only valid machine representations supported by DRDA.

This reason code is issued by the following CSECT:
DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the

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description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3590E

Explanation: DB2 has detected an error while parsing a DDM command data object received from a local DB2. The DDM object is a TYPDEFOVR, signaling a change in CCSIDs from the local DB2. This is a DDM collection consisting of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The length of one of the constituent scalars is incorrect.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3590F

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The DDM object is a TYPDEFOVR, signaling a change in CCSIDs from the local DB2. This is a DDM collection consisting of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The TYPDEFOVR contains multiple instances of the CCSIDSBC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35910

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The DDM object is a TYPDEFOVR, signaling a change in CCSIDs from the local DB2. This is a DDM collection consisting of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The TYPDEFOVR contains multiple instances of the CCSIDMBC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

and Reference for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35911

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The DDM object is a TYPDEFOVR, signaling a change in CCSIDs from the local DB2. This is a DDM collection consisting of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The TYPDEFOVR contains multiple instances of the CCSIDDBC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35912

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data received from a local DB2. The DDM object is a TYPDEFOVR, signaling a change in CCSIDs from the local DB2. This is a DDM collection consisting of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The TYPDEFOVR length exceeds the sums of the lengths of

the constituent scalars. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35913

Explanation: DB2 has detected an error while parsing a DDM command data object received from a local DB2. The DDM object is TYPDEFOVR, signaling a CCSID change from the local DB2. This is a collection consisting of CCSIDSBC, CCSIDMBC, and CCSIDDBC. The TYPDEFOVR contains an object other than CCSIDSBC, CCSIDDBC, or CCSIDDBC. This is invalid.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

00D35914 • 00D35919

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant AS trace information or dumps.

00D35914

Explanation: DB2 detected an error while parsing a DDM command received from the application requester (AR). The minimum level attribute of the DDM command received from the AR, (that is, the level of DDM required to support the command) exceeds the DDM level specified by the AR during CONNECT processing.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number included in the DSNL032I message.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35915

Explanation: DB2 detected an error while parsing a DDM command data object received from the application requester (AR). The minimum level attribute of the DDM command data object received from the AR (that is, the level of DDM required to support the object) exceeds the DDM level specified by the AR during CONNECT processing.

This reason code is issued by the following CSECT: DSNLZSPA

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number included in the DSNL032I message.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35918

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. The DDM command, specified by the code point contained within the level 6b RQSDSS, is invalid or not supported by DDM Level 3.

This reason code is issued by the following CSECT: DSNLZSPA.

System Action: A DDM reply message (CMDNSPRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35919

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. The negotiated security manager level is greater than or equal to 5, and the required ACCSEC and SECCHK commands were not received before the ACCRDB command.

This reason code is issued by the following CSECT: DSNLZSPA.

System Action: The conversation is terminated, and message DSNL030I is issued. Refer to the description of this message for further information.

A DDM reply message (MGRDEPRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3591A

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. The negotiated security manager level is less than 5, and an ACCSEC command was received.

This reason code is issued by the following CSECT: DSNLZSPA.

System Action: A DDM reply message (CMDNSPRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3591B

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An ACCSEC command was received when an ACCSEC command had already been executed successfully.

This reason code is issued by the following CSECT: DSNLZSPA.

System Action: The conversation is terminated, and

message DSNL030I is issued. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3591C

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. The negotiated security manager level is less than 5, and a SECCHK command was received.

This reason code is issued by the following CSECT: DSNLZSPA.

System Action: A DDM reply message (CMDNSPRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3591D

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. A SECCHK command was received out of order, which means either an ACCSEC command has not executed successfully, or a SECCHK command has already been processed.

00D3591E • 00D35A02

This reason code is issued by the following CSECT:
DSNLZSPA.

System Action: The conversation is terminated, and message DSNL030I is issued. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D3591E

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An ACCSEC or SECCHK command was sent after an ACCRDB was successfully processed.

This reason code is issued by the following CSECT:
DSNLZSPA.

System Action: The conversation is terminated, and message DSNL030I is issued. Refer to the description of this message for further information.

A DDM reply message (PRCCNVRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35A01

Explanation: DB2 has detected an error while parsing a DDM command data object received from a local DB2. The DDM object is either an SQLSTT, SQLOBJNAM or SQLSTTVRB. These objects are described by early group descriptors, each of which contains both SBCS and mixed SDAs describing character data. In all cases, the instantiation of the SBCS and mixed elements are mutually exclusive, i.e. if the SBCS element is sent, then the mixed must not be sent and conversely. The instantiation of both the SBCS and mixed data SDAs has been sent. This is invalid.

This reason code is issued by the following CSECT:
DSNLZSMT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (DTAMCHRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35A02

Explanation: DB2 has detected an error while parsing a DDM command data object received from a local DB2. The DDM object is either an SQLSTT, SQLOBJNAM, or SQLSTTVRB. These objects are described by early group descriptors, each of which contains both SBCS and mixed SDAs describing character data. In all cases, the instantiation of the SBCS and mixed elements are mutually exclusive, i.e. if the SBCS element is sent, then the mixed must not be sent and conversely. Further, either the SBCS or mixed (not both) must be instantiated. The data retrieved from the object instantiates neither the SBCS nor the mixed SDA. This is invalid.

This reason code is issued by the following CSECT:
DSNLZSMT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35B01

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The length of the SQLDTA exceeds 32KB, however, the DDM extended length field is invalid.

This reason code is issued by the following CSECT: DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35B02

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA is a DDM collection consisting of the FDODSC and FODOTA scalars. The first scalar within

the SQLDTA is other than the FDODSC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35B03

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA is a DDM collection consisting of the FDODSC and FODOTA scalars. The length of the FDODSC scalar exceeds 32KB, however, the format of the DDM extended length is invalid.

This reason code is issued by the following CSECT: DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

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At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35B04

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA FDOCA descriptor, contained in the FDODSC scalar, includes late environmental descriptors, however, the SQLDTA meta data definition (MDD) is either invalid or has not been included within the SQLDTA descriptor. The descriptor is invalid.

This reason code is issued by the following CSECT:
DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (DSCINVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35B05

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA FDOCA descriptor geometry is incorrect. Either the SQLDTA triplet length is incorrect or the SQLDTA triplet type is other than an row layout (RLO). The descriptor is invalid.

This reason code is issued by the following CSECT:
DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (DSCINVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

and *Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35B06

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA FDOCA descriptor geometry is incorrect. The SQLDTA RLO triplet either specifies a local identifier (LID) which is different than that defined in the previously processed SQLDTAGRP late group descriptor, or specifies a nonzero number of elements or a repetition factor other than 1. The descriptor is invalid.

This reason code is issued by the following CSECT:
DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (DSCINVRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35B07

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA FDOCA descriptor, contained within the FDODSC scalar, has been validated, however, the FDOTA scalar, containing the host variable data, is not included within the SQLDTA DDM object. This is invalid.

This reason code is issued by the following CSECT:
DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35B08

Explanation: DB2 has detected an error while parsing an SQLDTA command data object received from a local DB2. The SQLDTA FDOCA descriptor, contained within the FDODSC scalar, has been validated. The length of the FDOTA scalar, containing the host variable data, exceeds 32KB, however, the format of the DDM extended length field is invalid.

This reason code is issued by the following CSECT:
DSNLZSDT

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem

determination," on page 1353: 1, 49.

00D35C01

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. An invalid instance has been received as a parameter on a BGNBND command.

This reason code is issued by the following CSECT:
DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C02

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. An invalid instance has been received as a parameter on a BNDSQLSTT command.

This reason code is issued by the following CSECT:
DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number

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enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C03

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. An invalid instance has been received as a parameter on a DRPPKG command.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C04

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. An invalid instance has been received as a parameter on an ENDBND command.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C05

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. An invalid instance has been received as a parameter on a REBIND command.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C06

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. One or more instance variables, defined by DDM Level 3 as required parameters for this DDM command, were not received.

This reason code is issued by the following CSECT:
DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C07

Explanation: DB2 has detected an error while parsing a DDM command or DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command data received from a local DB2. The DDM command contains an instance variable which is not defined within DDM level 3.0. The instance variable (parameter) is invalid.

This reason code is issued by the following CSECT:
DSNLZSBD

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this DB2 remote server.

- Statistics Class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant AS trace information or dumps.

00D35C08

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. Multiple occurrences of a DDM instance variable, defined by DDM Level 3 as nonrepeatable, have been processed as parameters on this DDM command.

This reason code is issued by the following CSECT:
DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C09

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, BNDCHKEXS, is invalid.

This reason code is issued by the following CSECT:
DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an

00D35C0A • 00D35C0C

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C0A

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, BNDCRTCTL, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C0B

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, BNDEXPOPT, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message

DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C0C

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, BNDSTTASM, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C0D

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, DECPRC, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C0E

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. Bytes 9 through 18 of the DDM scalar, DFTRDBCOL are other than blank. While DDM defines the length of DFTRDBCOL to be 18 bytes, DB2 supports only 8-byte collection identifiers.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number

enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C0F

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, PKGATHOPT, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C10

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The length of the DDM scalar PKGDFTCC is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

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System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C11

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM PKGDFTCC collection consists of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The PKGDFTCC collection contains multiple instances of the CCSIDSBC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C12

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM PKGDFTCC collection consists of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The PKGDFTCC collection contains multiple instances of the

CCSIDDBC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C13

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM PKGDFTCC collection consists of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The PKGDFTCC collection contains multiple instances of the CCSIDMBC scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 49.

00D35C14

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM PKGDFTCC collection consists of three DDM scalars: CCSIDSBC, CCSIDMBC, and CCSIDDBC. The PKGDFTCC collection contains an invalid DDM object.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 49.

00D35C15

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, PKGDFTCST, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 49.

00D35C16

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, PKGISOLVL, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 49.

00D35C17

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM object PKGNAM is a mapped scalar containing RDBNAM, RDBCOLID and PKGID. Bytes 17 and 18 of the DDM scalar, RDBNAM, are other than blank. While DDM defines the length of RDBNAM to be 18 bytes, DB2 supports only a 16 byte RDBNAM.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message

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DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C18

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM object PKGNAM is a mapped scalar containing RDBNAM, RDBCOLID and PKGID. Bytes 9 through 18 of the DDM scalar, PKGID, are other than blank. While DDM defines the length of PKGID to be 18 bytes, DB2 supports only 8 byte package identifiers.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C19

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM object PKGNAMCT is a mapped scalar containing RDBNAM, RDBCOLID, PKGID and PKGCNSTKN. Bytes 17 and 18 of the DDM scalar, RDBNAM, are other than blank. While DDM defines the length of RDBNAM to be 18 bytes, DB2 supports only a 16 byte RDBNAM.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C1A

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM object PKGNAMCT is a mapped scalar containing RDBNAM, RDBCOLID, PKGID and PKGCNSTKN. Bytes 9 through 18 of the DDM scalar, PKGID, are other than blank. While DDM defines the length of PKGID to be 18 bytes, DB2 supports only 8 byte package identifiers.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 49.

00D35C1B

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, PKGRPLOPT, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 49.

00D35C1C

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, QRYBLKCTL, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message

DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 49.

00D35C1D

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. Bytes 17 and 18 of the DDM scalar, RDBNAM, are other than blank. While DDM defines the length of RDBNAM to be 18 bytes, DB2 supports only a 16 byte RDBNAM.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 49.

00D35C1E

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the RDBNAM scalar is other than the local DB2 RDBNAM.

This reason code is issued by the following CSECT:
DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (RDBNACRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C1F

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, RDBLSOPT, is invalid.

This reason code is issued by the following CSECT:
DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C20

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, STTDATFMT, is invalid.

This reason code is issued by the following CSECT:
DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C21

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, STTDECDEL, is invalid.

This reason code is issued by the following CSECT:
DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C22

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The value of the DDM enumerated scalar, STTSTRDEL, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C23

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from the local DB2. The value of the DDM enumerated scalar, STTTIMFMT, is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message

DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C24

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The DDM TIMESTAMP scalar has been received as a command parameter from a database other than DB2. The TIMESTAMP scalar is private to DB2.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C25

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The length of a DDM object is less than 4, the minimum length of any DDM object. This is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C26

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The length of the DDM command is less than the sum of the lengths of the constituent instance variables appearing as parameters.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number

enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C27

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The length of a DDM object exceeds the length defined by DDM Level 3. This is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C28

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. The length of a DDM object is less than the length defined by DDM Level 3. This is invalid.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35C29

Explanation: DB2 has detected an error while parsing a DDM command or DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from a local DB2. A package related identifier or collection identifier is in violation of the SAA syntax. This is either the collection identifier (DFTRDBCOL) received on a BGNBND or REBIND command or the package identifier or collection identifier within the PKGNAM, PDGNAMCT, or PKGNAMCSN mapped scalars received on a BGNBND, BNDSQLSTT, ENDBND, or DRPPKG command.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant AS trace information or dumps.

00D35C2A

Explanation: DB2 has detected an error while parsing a DDM BGNBND, BNDSQLSTT, ENDBND, DRPPKG, or REBIND command received from the local DB2. The value of MAXSCTNBR received on the ENDBND command is invalid. The value must be within the range 1 to 32767 inclusive.

This reason code is issued by the following CSECT: DSNLZSBD

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

Collect the following diagnostic items at this local DB2.

- Statistics class 4 trace record identified by the IFCID sequence number specified in message DSNL031I.

Collect the following diagnostic items at the remote server.

- Relevant error and system logs spanning the time of the failure.
- Any relevant AS trace information or dumps.

00D35C2B

Explanation: DB2 detected an error in a DDM BGNBND or REBIND command received from a DRDA requester. The value of the enumerated scalar, PKGATHRUL, is invalid.

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for more information.

A DDM reply message (VALNSPRM) is returned to the DRDA requester.

Operator Response: Notify the system programmer.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL032I.

00D35D01 • 00D35D04

If the DRDA requester is a DB2, then DB2 diagnostic information is available. In that case, at the DB2 requester, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At the DB2 server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

This reason code is issued by the following CSECT:
DSNLZSBD

00D35D01

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. An instance variable, defined as valid by DDM Level 3, but not supported by DB2, has been detected on one of the following DDM commands: CLSQRY, DSCRDBTBL, DSCSQLSTT, or EXCSQLIMM.

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D02

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. An instance variable, defined as valid by DDM Level 3, but not supported by DB2, has been detected on a DDM CNTQRY command.

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D03

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The value of the DDM OUTEXP enumerated value instance variable, contained within a DDM EXCSQLSTT command, is other than FALSE (X'F0') or TRUE (X'F1').

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D04

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. An instance variable, defined as valid by DDM Level 3, but not supported by DB2, has been detected on a DDM EXCSQLSTT command.

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D05

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The value of DDM QRYBLKCTL instance variable, received as a parameter on OPNQRY, is other than FRCSNGROW. The local DB2 may not specify LMTBLKPRC or SNGROWPRC as values of QRYBLKCTL as an OPNQRY parameter.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D07

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The value of the DDM RTNSQLDA enumerated value instance variable, contained within a DDM EXCSQLSTT command, is other than FALSE (X'F0') or TRUE (X'F1').

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D08

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. An instance variable, defined as valid by DDM Level 3, but not supported by DB2, has been detected on a DDM PRPSQLSTT command.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

00D35D09 • 00D35D0C

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D09

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. An instance variable, defined as valid by DDM Level 3, but not supported by DB2, has been detected on a DDM RDBCMM or RDBRLBCK command.

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D0A

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The length of the DDM command is not equal to the sum of the lengths of the constituent instance variables.

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

and *Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D0B

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. One or more instance variables, defined by DDM Level 3 as required for this command, were not received as command parameters.

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D0C

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. An instance variable, defined by DDM Level 3 as not valid for this command, has been received as a command parameter.

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the

description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D0D

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. Multiple occurrences of one or more instance variables, defined by DDM level 3 as nonrepeatable, have been received as parameters of this DDM command.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D0E

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. Bytes 17 and 18 of the DDM scalar, RDBNAM, are other than blank. While DDM Level 3 defines the length of this scalar to be 18 bytes, DB2 supports only a 16 byte RDBNAM.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D0F

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The value of the RDBNAM instance variable is different than that received on the ACCRDB command.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (RDBNACRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

00D35D10 • 00D35D12

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D10

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The mapped scalar, PKGNAMCSN, is invalid. Bytes 17 and 18 of the DDM scalar RDBNAM, contained within PKGNAMCSN, are other than blank. While DDM Level 3 defines the length of this scalar to be 18 bytes, DB2 supports only a 16 byte RDBNAM.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D11

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The mapped scalar, PKGNAMCSN, is invalid. Either bytes 9 through 18 of the package name are other than blank or the section number is nonpositive. While the DDM scalar, PKGID, is defined by DDM level 3 to be 18 bytes in length, DB2 supports only 8 byte package names.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D12

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The value of the DDM scalar, QRYBLKSZ, contained as a parameter on a DDM OPNQRY, CNTQRY, or EXCSQLSTT command, is invalid. The value of QRYBLKSZ must be between 512 and 32767, inclusive.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D13

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. a TIMESTAMP instance variable has been included as a command parameter received from a database other than DB2. This DDM scalar is private to DB2.

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D14

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The length of one or more instance variables received as command parameters is less than 4. This is the minimum length to support a DDM length and code point (llcp).

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D15

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The length of the DDM command is less than the sum of the lengths of all constituent instance variables.

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D16

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The length of an instance variable received as a command parameter exceeds the length of the instance variable, as specified by DDM Level 3.

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

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and *Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D17

Explanation: DB2 has detected an error while parsing a DDM command received from a local DB2. The length of an instance variable received as a command parameter is less than the length of the instance variable, as specified by DDM Level 3.

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this DB2 remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D18

Explanation: DB2 has detected an error while parsing a DDM command received from a DRDA requester. The value of the DDM scalar, MAXRSLCNT, contained as a parameter on a DDM EXCSQLSTT command, is invalid. The value of MAXRSLCNT must be greater than or equal to -1.

This reason code is issued by the following CSECT:
DSNLZSQL

System Action: An alert is generated and message

DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the DRDA requester.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL032I.

If the DRDA requester is DB2 UDB for z/OS, then DB2 diagnostic information is available. In this case, at the DB2 requester, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

At the DB2 server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83.

00D35D19

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM DSCSQLSTT command received from a remote DRDA client. The value of the DDM enumerated scalar TYPSQLDA is invalid.

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 UDB for OS/390, at the DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D1A

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM DSCSQLSTT command received from a remote DRDA client. An instance variable, defined as valid by DDM Level 5, but not supported by DB2, has been detected on a DDM DSCSQLSTT command.

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 UDB for OS/390 system, at the DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D1B

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM OPNQRY or EXCSQLSTT command received from a remote DRDA client. The value of the DDM enumerated scalar OUTOVROPT is invalid.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number

enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35D1C

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM CNTQRY command received from a remote DRDA client. The value of the DDM enumerated scalar RTNEXTDTA is invalid.

This reason code is issued by the following CSECT: DSNLZSQL

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (VALNSPRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E00

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid RDBNAM length was sent on an ACCSEC command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: If the length of the RDBNAM is greater than 18, then A DDM reply message

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(SYNTAXRM) is returned to the DRDA client. If the data in characters 17-18 of the RDBNAME is non-blank, then a DDM reply message (VALNSPRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E01

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An ACCSEC or SECCHK command was sent without one or more of its required DDM instance variables.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E02

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An ACCSEC or SECCHK command was sent with the RQSDSS length fields set improperly.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E03

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid instance variable was sent on an ACCSEC command.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E04

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. A duplicate instance variable was sent on an ACCSEC command.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E05

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid SECMGRNM length was sent on an ACCSEC command. The SECMGRNM must be null.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E06

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid SECMEC length was sent on an ACCSEC command. Only one SECMEC can be specified.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E07

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid instance variable was sent on a SECCHK command.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E08

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. A duplicate instance variable was sent on a SECCHK command.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

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Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E09

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid SECMGRNM length was sent on a SECCHK command. The SECMGRNM must be null.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E0A

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid SECMEC length was sent on a SECCHK command. Only one SECMEC can be specified.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace

record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E0B

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid RDBNAM length was sent on a SECCHK command.

This reason code is issued by the following CSECT: DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E0C

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid USRID length was sent on a SECCHK command. DB2 userids cannot exceed 8 bytes.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number

enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E0D

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid PASSWRD length was sent on a SECCHK command. DB2 passwords cannot exceed 8 bytes.

This reason code is issued by the following CSECT: DSNLZSAS.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E0E

Explanation: DB2 has detected an error in the DDM command data object or DDM reply data object received from the remote server as part of a DDM command or reply. The sum of the lengths of the constituent DDM objects within an OBJDSS is inconsistent with the length of the DSS carrier.

This reason code is issued by the following CSECT: DSNLZODM

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

and *Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E0F

Explanation: DB2 has detected an error in the DDM command data object or DDM reply data object received from the remote server as part of a DDM command or reply. The size of the object is greater than 32KB and the DDM level 6b extended length field is invalid.

This reason code is issued by the following CSECT: DSNLZODM

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E10

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a 4-byte or 8-byte floating point number in IEEE format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the

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description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *DB2 Diagnosis Guide and Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E11

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a nullable 4-byte or 8-byte floating point number in IEEE format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *DB2 SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E12

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a 4-byte floating point number in VAX format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *DB2 SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E13

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a nullable 4-byte floating point number in VAX format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *DB2 SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E14

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a 8-byte floating point number in VAX format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *DB2 SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E15

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a nullable 8-byte floating point number in VAX format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *DB2 SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At the DB2 for MVS DRDA client, collect the following

diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E16

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a 4-byte floating point number in 80x86 format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *DB2 SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E17

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a nullable 4-byte floating point number in 80x86 format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *DB2 SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number

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enumerated in the DSNL0311 message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E18

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a 8-byte floating point number in 80x86 format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *DB2 SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E19

Explanation: DB2, acting as a DRDA client, has detected a floating point conversion error when converting a nullable 8-byte floating point number in 80x86 format to System/370 format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the floating point value. Overflow can occur when the floating value is out of the System/370 floating point range. Refer to Appendix A of *DB2 SQL Reference* for details of floating point range.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E1A

Explanation: DB2, acting as a DRDA client, has detected an error in a NUL-terminated string of length less than 257 bytes. The NUL-terminator cannot be located within the data field as defined by the DDM descriptor received.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E1B

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable NUL-terminated string of length less than 257 bytes. The NUL-terminator cannot be located within the data field as defined by the DDM descriptor received.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL0311 is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL0311 message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E1C

Explanation: DB2, acting as a DRDA client, has detected an error in a NUL-terminated string of length greater than 256 bytes. The NUL-terminator cannot be located within the data field as defined by the DDM descriptor received.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E1D

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable NUL-terminated string of length greater than 256 bytes. The NUL-terminator cannot be located within the data field as defined by the DDM descriptor received.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E1E

Explanation: DB2, acting as a DRDA client, has detected an error in a numeric character data field (nullable or non-nullable). DB2 has detected a numeric conversion error, preventing the data from being converted to packed decimal format.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the numeric data.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E1F

Explanation: DB2, acting as a DRDA client, has detected an error in a variable length DBCS character data field whose length is given by a 2-byte length field and whose maximum length is less than 257 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E20

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable variable length DBCS character data field whose length is given by a 2-byte length field and whose maximum length is less than 257 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT:
DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E21

Explanation: DB2, acting as a DRDA client, has detected an error in a variable length DBCS character data field whose length is given by a 2-byte length field and whose maximum length is greater than 256 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT:
DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E22

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable variable length DBCS character data field whose length is given by a 2-byte length field and whose maximum length is greater than 256 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT:
DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E23

Explanation: DB2, acting as a DRDA client, has detected an error in a variable length DBCS character data field whose length is given by a 1-byte length field. The value of the length field is greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT:
DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E24

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable variable length DBCS character data field whose length is given by a 1-byte length field. The value of the length field is greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT:
DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E25

Explanation: DB2, acting as a DRDA client, has detected an error in a variable length SBCS character data field whose length is given by a 2-byte length field and whose maximum length is less than 257 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT:
DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E26

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable variable length SBCS character data field whose length is given by a 2-byte length field and whose maximum length is less than 257 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT:
DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E27

Explanation: DB2, acting as a DRDA client, has detected an error in a variable length SBCS character data field whose length is given by a 2-byte length field and whose maximum length is greater than 256 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT:
DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E28

Explanation: DB2, acting as a DRDA client, has detected an error in a nullable variable length SBCS character data field whose length is given by a 2-byte length field and whose maximum length is greater than 256 bytes. The value of the length field is either negative or greater than the maximum length specified by the DDM descriptor for the field.

This reason code is issued by the following CSECT: DSNLZFEX

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E29

Explanation: DB2, acting as a DRDA client, has detected an error in a zoned decimal data field (nullable or non-nullable). DB2 has detected a numeric conversion error, preventing the data from being converted to packed decimal format.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

Operator Response: Notify the system programmer.

User Response: Check the numeric data.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At the DB2 for MVS DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

00D35E2A

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The BNDOPT collection contains multiple instances of the BNDOPTNM scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E2B

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The BNDOPT collection contains multiple instances of the BNDOPTVL scalar. This is invalid.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace

record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E2C

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The BNDOPT collection contains an invalid instance.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (PRMNSPRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E2D

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. A BNDOPTNM instance variable is required for this DDM collection but was not received.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E2E

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. A BNDOPTVL instance variable is required for this DDM collection but was not received.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

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At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E2F

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The length of the DDM object is less than 4, the minimum length of any DDM object. This is invalid.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E30

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The length of the DDM command is less than the sum of the lengths of the constituent instance variables appearing as parameters.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E31

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The length of a DDM instance variable is less than the minimum length defined by DDM Level 3. This is invalid.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E32

Explanation: DB2, acting as a DRDA server, has detected an error while parsing a DDM BNDOPT command data object received from a remote DRDA client. The length of a DDM instance variable is greater than the maximum length defined by DDM Level 3. This is invalid.

This reason code is issued by the following CSECT: DSNLZOBO

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DDM reply message (SYNTAXRM) will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E33

Explanation: DB2 has detected an error in the DDM SQLRSLRD reply data object received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The value of the single element of the SQLNUMGRP, SQLNUM, defining the total number of SQLRSROW occurrences within the SQLRSLRD array, is inconsistent with the number of result sets indicated in the RSLSETRM.

This reason code is issued by the following CSECT: DSNLZRRS.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

and *Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83.

If the DRDA server is DB2 UDB for z/OS, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D35E34

Explanation: DB2 has detected an error in the DDM SQLRSLRD reply data object received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. Within one or more SQLRSROW occurrences, the lengths of SQLRSNAME_m and SQLRSNAME_s are both non-0, but only one of these lengths should be non-0. The data is invalid with regard to the Early SQLRSGRP group descriptor as defined by DRDA.

This reason code is issued by the following CSECT: DSNLZRRS.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83.

If the DRDA server is DB2 UDB for z/OS, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D35E35

Explanation: DB2 has detected an error in the DDM SQLCINRD reply data object received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. The value of the single

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element of the SQLNUMGRP, SQLNUM, defining the total number of SQLCIROW occurrences within the SQLCINRD array, is either negative or is inconsistent with the size of the SQLCINRD array.

This reason code is issued by the following CSECT: DSNLZRCL.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83.

If the DRDA server is DB2 UDB for z/OS, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D35E36

Explanation: DB2 has detected an error in the DDM SQLCINRD reply data object received from the remote server in response to a DDM EXCSQLSTT command that generated query result sets. Within one or more SQLCIROW occurrences, the lengths of SQLCNAME_m and SQLCNAME_s are both non-0, but only one of these lengths should be non-0. The data is invalid with regard to the Early SQLCIGRP group descriptor as defined by DRDA.

This reason code is issued by the following CSECT: DSNLZRCL.

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30020 and SQLSTATE 58009.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the statistics class 4 trace record identified by the IFCID sequence number

given in message DSNL031I.

At the DB2 requester, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 83.

If the DRDA server is DB2 UDB for z/OS, then DB2 diagnostic information is available. In this case, at the DB2 server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

00D35E37

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid IPADDR length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E38

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid SNAADDR length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E39

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid RDBNAM length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E3A

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid LOGNAME length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E3B

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid LOGTSTMP length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E3C

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid instance variable was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E3D

Explanation: DB2 has detected an error in the DDM command data object or DDM reply data object received from the remote server as part of a DDM command or reply. The DDM level 6b length field is invalid.

This reason code is issued by the following CSECT:
DSNLZPSL

System Action: An alert is generated and message DSNL031I is written to the console. Refer to the description of this message for further information.

The application will receive SQLCODE -30000 and SQLSTATE 58008.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL031I message should be analyzed.

At this local DB2, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E3E

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid instance variable was sent on a SYNCCTL command.

This reason code is issued by the following CSECT:
DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic

items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E3F

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. A duplicate instance variable was sent on a SYNCCTL command.

This reason code is issued by the following CSECT:
DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E40

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid SYNCTYPE length was sent on a SYNCCTL command.

This reason code is issued by the following CSECT:
DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E41

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid RLSCONV length was sent on a SYNCCTL command.

This reason code is issued by the following CSECT:
DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E42

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid UOWID length was sent on a SYNCCTL command.

This reason code is issued by the following CSECT:
DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E43

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid instance variable was sent on a SYNCRSY command.

This reason code is issued by the following CSECT:
DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E44

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. A duplicate instance variable was sent on a SYNCRSY command.

This reason code is issued by the following CSECT:
DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E45

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid RSYNCTYP length was sent on a SYNCRSY command.

This reason code is issued by the following CSECT:
DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E46

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid UOWID length was sent on a SYNCRSY command.

This reason code is issued by the following CSECT:
DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E47

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid UOWSTATE length was sent on a SYNCRSY command.

This reason code is issued by the following CSECT:
DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E48

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid FORGET length was sent on a SYNCCTL command.

This reason code is issued by the following CSECT:
DSNLZSAS

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E49

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid TCPHOST length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E4A

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid CNNTKN length was sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL.

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E4B

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. A required instance variable was not sent on a SYNCLOG object.

This reason code is issued by the following CSECT: DSNLZPSL.

System Action: A DDM reply message (SYNTAXRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E51

Explanation: DB2, acting as a DRDA server, has detected an error in a DDM command data object received from a remote client. The DDM object is the OUTOVR object. The size of the OUTOVR is greater than 32KB and the DDM level 6b extended length field is invalid.

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A SYNTAXRM reply message will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

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At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E52

Explanation: DB2, acting as a DRDA server, has detected an error in a DDM command data object received from the remote client. The DDM object is the OUTOVR scalar of the SQLDTARD collection. The FDOCA descriptor geometry is incorrect. The SQLCADTA row (RLO) MDD is either invalid or has not been included within the SQLDTARD descriptor. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZSOV

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DSCINVRM reply message will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E53

Explanation: DB2, acting as a DRDA server, has detected an error in a DDM command data object received from the remote client. The DDM object is the OUTOVR scalar of the SQLDTARD collection. The FDOCA descriptor geometry is incorrect. The SQLCADTA row triplet (RLO) is either invalid or has not been included within the SQLDTARD descriptor. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZSOV

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DSCINVRM reply message will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E54

Explanation: DB2, acting as a DRDA server, has detected an error in a DDM command data object received from the remote client. The DDM object is the OUTOVR scalar of the SQLDTARD collection. The FDOCA descriptor geometry is incorrect. Either the first component of the SQLCADTA row is other than an SQLCAGRP (early) group or the number of elements taken from the SQLCAGRP or SQLCAGRP replication factor (or both) are incorrect. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZSOV

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DSCINVRM reply message will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E55

Explanation: DB2, acting as a DRDA server, has detected an error in a DDM command data object received from the remote client. The DDM object is the OUTOVR scalar of the SQLDTARD collection. The FDOCA descriptor geometry is incorrect. The first component of the SQLCADTA row correctly enumerates the elements of the SQLCAGRP; however, the second component, identifying the SQLDTAGRP (late) group, is incorrect. Either the SQLDTAGRP local identifier (LID) is different from the LID of the SQLDTAGRP previously specified or the number of elements taken from the SQLDTAGRP replication factor (or both) are incorrect. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZSOV

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DSCINVRM reply message will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E56

Explanation: DB2, acting as a DRDA server, has detected an error in a DDM command data object received from the remote client. The DDM object is the OUTOVR scalar of the SQLDTARD collection. The FDOCA descriptor geometry is incorrect. One or more late environment descriptors is included within the previously specified SQLDTAGRP late group descriptor. However, the SQLDTARD row (RLO) Meta Data Definition (MDD) is either incorrect or has not been

included within the SQLDTARD descriptor. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZSOV

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DSCINVRM reply message will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E57

Explanation: DB2, acting as a DRDA server, has detected an error in a DDM command data object received from the remote client. The DDM object is the OUTOVR scalar of the SQLDTARD collection. The FDOCA descriptor geometry is incorrect. Either the SQLDTARD is specified as other than a row triplet (RLO) or the SQLDTARD RLO triplet is invalid. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZSOV

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DSCINVRM reply message will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number

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enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E58

Explanation: DB2, acting as a DRDA server, has detected an error in a DDM command data object received from the remote client. The DDM object is the OUTOVR scalar of the SQLDTARD collection. The FDOCA descriptor geometry is incorrect. Either the SQLCADTA local identifier (LID) referenced within the SQLDTARD RLO did not match the LID defined within the SQLCADTA RLO or the number of elements or replication factor (or both) within the SQLDTARD RLO was non-zero. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZSOV

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DSCINVRM reply message will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E59

Explanation: DB2, acting as a DRDA server, has detected an error in a DDM command data object received from the remote client. The DDM object is the

OUTOVR scalar of the SQLDTARD collection. The FDOCA descriptor geometry is incorrect. Either the length specified in the LL preceding the OUTOVR is greater than the length of the OBJDSS carrier or the length of one of the constituent geometries (triplet lengths) is inconsistent with the length of the OUTOVR. The descriptor is invalid.

This reason code is issued by the following CSECT: DSNLZSOV

System Action: An alert is generated and message DSNL032I is written to the console. Refer to the description of this message for further information.

A DSCINVRM reply message will be returned to the remote DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

You should also analyze the statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message.

Problem Determination: If the remote DRDA client is a DB2 for MVS system, at the DB2 DRDA client, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 83. For other remote DRDA clients, refer to the client product documentation for diagnostic recommendations.

At the DB2 DRDA server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E5A

Explanation: DB2 has detected an error while parsing a DDM command or DDM command data. An invalid NEWPSWD length was sent on a SECCHK command. New passwords cannot exceed 255 bytes.

System Action: A DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic

items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E5B

Explanation: DB2 has detected an error while parsing the DDM ACCSEC command or its reply data. The encryption connection key passed in the SECTKN instance variable has an invalid length. The connection key must be a 32-byte security token.

System Action: If at the server, a DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E5C

Explanation: DB2 has detected an error while parsing the DDM SECCHK command or its reply data. The encrypted password passed in the SECTKN instance variable has an invalid length. DB2 supports an 8-byte or a 16-byte encrypted password.

System Action: If at the server, a DDM reply message (SYNTAXRM) is returned to the local DB2.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At this local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At this remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E62

Explanation: DB2 detected an error in a DDM command or DDM command data. An invalid interrupt token was sent on an INTRDBRQS command.

System Action: A DDM reply message (SYNTAXRM or INTTKNRM) is returned to the DRDA client. INTTKNRM is returned if the client is not authorized to interrupt an SQL statement or the token length is not 30 bytes. In all other cases, SYNTAXRM is returned.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At the local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At the remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00D35E63

Explanation: DB2 detected an error in a DDM command or DDM command data. An invalid RDBNAM length was sent on an INTRDBRQS command.

System Action: If the length of the RDBNAM is greater than 255 (if client supports long names) or greater than 18 (if client does not support long names), then a DDM reply message (SYNTAXRM) is returned to the DRDA client. If the data in characters 17-18 of the RDBNAME is non-blank, then a DDM reply message (VALNSPRM) is returned to the DRDA client.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The statistics class 4 trace record identified by the IFCID sequence number enumerated in the DSNL032I message should be analyzed.

At the local DB2, collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 83.

At the remote server, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

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00D40001

Explanation: The IMS attachment facility detected an invalid save area chain pointer. This condition occurs only if the save area is overlaid or if the save area pointer is invalid.

This abend reason code is issued by the following CSECTS:

DSNMCMDO DSNMDR00 DSNMDR10 DSNMID00
DSNMINIT DSNMDRIO DSNMSN00

System Action: The task is abended.

System Programmer Response: If the abend occurred in an IMS dependent region, restart the region. If the abend occurred in the IMS control region, restart the connection. Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the dump. Register 13 plus four bytes is the address of the invalid save area chain pointer.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 26, 27, 45.

00D40008

Explanation: The IMS attachment facility command module's ESTAE routine places this reason code in the variable recording area of SYS1.LOGREC. The reason code indicates that the entry is not a standard DB2 entry. The reason code is followed by the current IMS attachment facility trace entry, the first four characters of the command, the output destination, and the authorization ID.

This message records information in the variable recording area (VRA).

This abend reason code is issued by the following CSECT: DSNMCMDO

System Action: Every attempt is made to return to RTM with the retry option. If the retry is successful, a message is sent to the originating destination to show that the command failed.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Analyze the SYS1.LOGREC data. The log record contains the current IMS attachment facility trace entry, the first four characters of

the command, the output destination, and the authorization ID for the failing command.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 3, 4, 26, 27, 45.

00D40061

Explanation: The IMS attachment facility could not establish a connection with DB2 because an IMS /STOP SUBSYS command was issued.

This abend reason code is issued by the following CSECT: DSNMSNO0

System Action: The application's SQLCA is updated with an SQLCODE -924 and reason code 00D40061. Control is returned to the application.

User Response: Wait for the IMS /START SUBSYS command to be issued before reentering the transaction.

Operator Response: Issue the IMS /START SUBSYS command to establish a connection with DB2 and reenter the transaction.

System Programmer Response: Determine why the IMS /STOP SUBSYS command was issued.

Problem Determination: Analyze the application's SQLCA.

00D40062

Explanation: The IMS attachment facility could not establish a connection with DB2 because IMS is shutting down.

This abend reason code is issued by the following CSECT: DSNMSNO0

System Action: The application's SQLCA is updated with an SQLCODE -924 and reason code 00D40062. Control is returned to the application.

User Response: Reenter the transaction after IMS has been restarted.

Operator Response: Restart IMS.

System Programmer Response: Determine why IMS was stopped.

Problem Determination: Analyze the application's SQLCA.

00D40063

Explanation: DB2's IMS attachment facility received an unexpected return code from the IMS external subsystem attach facility while attempting to start the

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subsystem connection to DB2.

This abend reason code is issued by the following CSECT: DSNMSNOO

System Action: The application's SQLCA is updated with an SQLCODE -924, reason code 00D40063, and the return code received from the IMS external subsystem facility. One of the following return codes may appear.

- 12 - DB2 connection unsuccessful. The external subsystem encountered an error processing the request.
- 24 - DB2 connection unsuccessful. The external subsystem responded with a 'never connect' return code from the initialization exit.
- 28 - DB2 connection unsuccessful. IMS resources were unavailable to process the request.
- 32 - DB2 connection unsuccessful. An invalid EPL was encountered.
- 36 - DB2 connection unsuccessful. Request rejected due to the external subsystem invoking the subsystem termination service exit.

Control is returned to the application.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal error. To be certain the proper diagnostic information is available, stop the region with a dump.

Problem Determination: The WAL control block in the dump contains an IMS attach trace table. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 5, 26, 27, 45.

00D40069

Explanation: DB2's IMS attachment facility received an unexpected return code from the IMS external subsystem attach facility while attempting to establish a connection to DB2.

This abend reason code is issued by the following CSECTs:

DSNMDR10 DSNMERR0 DSNMSNOO

System Action: The application's SQLCA is updated with an SQLCODE -924, reason code 00D40069, and the return code received from the IMS External Subsystem Attach Facility. Control is returned to the application.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal error. To be certain the proper diagnostic information is

available, stop the region with a dump.

Problem Determination: The WAL control block in the dump contains an IMS attach trace table. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4, 5, 26, 27, 45.

00D44011

Explanation: The DB2-DL/I batch support or IMS BMP job step cannot continue because the application program could not be loaded.

This abend reason code is issued by the following CSECT: DSNMTV01

System Action: The DB2-DL/I batch support or IMS BMP job step cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Be sure the DDITV02 SYSIN data (for DB2-DL/I batch support) or IMSBATCH procedure (for an IMS BMP job step) names a subsystem member (SSM) parameter that points to a resource translation table (RTT). The RTT maps the IMS application name to the DB2 plan name.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54.

00D44021

Explanation: The DB2-DL/I batch support cannot continue because the length of a parameter value specified in the DDITV02 SYSIN data set is incorrect.

This abend reason code is issued by the following CSECT: DSNMTV02

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the DDITV02 SYSIN data set parameter value in error and rerun the job. Make sure the correct data set name is specified by the DDITV02 DD statement and the DCB RECFM is F or FB for the data set.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for more information about failure analysis procedures. For information on identifying and reporting the problem.

Problem Determination: The parameter value length limits are the following:

- DB2 subsystem name: 0 < SSN < 5.
- LIT value < 5.
- DB2 initialization module name = 8.
- DB2 optional resource translation module name < 9.
- Region error option value < 2.
- The command recognition value < 2.
- The connection name < 9.
- The DB2 plan name < 9.
- The application program load module name < 9.

Register 8 indicates the delimiter following the field in error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54.

00D44022

Explanation: The DB2-DL/I batch support cannot continue because the DDITV02 SYSIN data set cannot be opened or an end of file was reached before a record was read.

This abend reason code is issued by the following CSECT: DSNMTV02

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the DDITV02 DD statement or data set in error and rerun the job.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for more information about for information on identifying and reporting the problem.

Problem Determination: See if a DDITV02 data set exists and contains a properly formatted record.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54.

00D44023

Explanation: The DB2-DL/I batch support cannot continue because one or more of the DDITV02 SYSIN data set values are incorrectly specified. The end of the input record was detected before all the values were found.

This abend reason code is issued by the following CSECT: DSNMTV02

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the DDITV02 DD value or data set in error and rerun the job. Make sure the correct data set name is specified by the DDITV02 DD statement and the DCB RECFM is F or FB for the data set.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for more information about for information on identifying and reporting the problem.

Problem Determination: Check the DDITV02 DD SYSIN values for proper format.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54.

00D44024

Explanation: The DB2-DL/I batch support cannot continue because the DDITV02 SYSIN data set value for the DB2 initialization module refers to an incorrect module.

This abend reason code is issued by the following CSECT: DSNMTV02

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the DDITV02 SYSIN DD value or data set in error by specifying DSNMIN10 as the initialization module and rerun the job.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Check the DDITV02 DD SYSIN value for the required parameter DSNMIN10.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54.

00D44025

Explanation: The DB2-DL/I batch support cannot continue because the DDITV02 SYSIN data set value for the DB2 region error option is incorrect. Only R, Q, A, or null (specified as „) are valid.

This abend reason code is issued by the following CSECT: DSNMTV02

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the DDITV02 SYSIN DD value for the region error option of R, Q, A, or null and rerun the job.

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If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Check the DDITV02 DD SYSIN value for the proper value of the error option of R, Q, A, or null.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54.

00D44031

Explanation: The DB2-DL/I batch support cannot continue because a connection could not be established to the DB2 subsystem named in the DDITV02 SYSIN data set. This error usually occurs for one of these reasons:

- The DB2 subsystem name specified either in the DDITV02 SYSIN data set (default) or in the member defined by the IMSID-SSM combination is incorrect.
- The DB2 system is not operational.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

User Response: Notify the system programmer.

Operator Response: It might be necessary to start the DB2 subsystem specified.

System Programmer Response: Either correct the DDITV02 DD SYSIN or the member pointed to by the IMSID-SSM combination for the DB2 subsystem name if it is incorrect, and rerun the job. Otherwise, have the operator start the DB2 subsystem if it is stopped.

Problem Determination: Either check the DDITV02 DD SYSIN or the member pointed to by the IMSID-SSM combination for the proper DB2 subsystem name. Make sure the correct data set name is specified by the DDITV02 DD statement and the DCB RECFM is F or FB for the data set.

The WAL control block in the dump contains information about the connection and the IMS attach trace table. Field WALSSID indicates the name of the DB2 subsystem being called.

The last entry in the trace table has an ID of ID00 and the CALL STATUS contains the 2-byte return code and 4-byte reason code of the failure. The 4-byte reason code might provide additional diagnostic information to help determine the cause of the failure.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

If the correct DB2 subsystem name was specified and was available, refer to the specific reason code

explanation for details about the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54, 55.

00D44032

Explanation: The DB2-DL/I batch support cannot continue because the DB2 create thread or signon failed.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: The DB2-DL/I batch support cannot continue and processing terminates abnormally.

Operator Response: Notify the system programmer.

User Response: Verify that all required DB2 objects are available and that the specified plan name is correct. If the problem persists, notify the system programmer.

Problem Determination: Examine the WAL control block in the dump, or any X'5501FF00' IMS attachment log records in the IMS log data set (if available) for specific DB2 return and reason codes, along with the WALERN field which indicates the reason for the failure.

The WAL control block in the dump contains information about the connection and the IMS attach trace table. The last entry in the trace table will have an ID of CTHD or SIGN and the CALL STATUS contains the two-byte return code and four-byte reason code of the failure.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54, 55.

00D44033

Explanation: The DB2-DL/I batch support cannot continue because the application was selected as a dead lock victim.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

User Response: Notify the system programmer.

Operator Response: It may be necessary to schedule the application program when lock out conditions are less likely to occur.

System Programmer Response: Analyze the reason for the dead lock condition from information sent to the MVS console by DB2 as message number DSNT375I or DSNT376I.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54, 55.

00D44034

Explanation: The DB2-DL/I batch support cannot continue because an unrecoverable error was encountered during resolve indoubt processing between IMS and DB2. The status of the current indoubt DB2 thread remains unchanged.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: The DB2-DL/I batch support processing is terminated, and a DB2 04E SVC dump is requested.

Operator Response: Enter the DISPLAY THREAD TYPE (INDOUBT) command to determine the current status of indoubt thread processing between IMS and DB2 at the time of the failure. Notify the system programmer.

System Programmer Response: This may be an internal protocol error between the IMS external subsystem attach facility and the DB2 IMS attachment facility, or an execution environment error external to both IMS and DB2. Examine both the IMS and MVS console logs for any error messages or abnormal return codes associated with the DL/I batch job.

Problem Determination: Locate and examine any DB2 IMS attachment snap records (code X'5501FE') that are present in the IMS log data set, and examine WAL trace table entries included in the dump.

If a DB2 reason code is provided in either the WAL trace entry, or the WALSFER2 field of the X'5501FE' log record, follow the instructions associated with this reason code for additional information concerning the failure.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 25, 27, 32, 45, 49, 50.

00D44035

Explanation: The DB2-DL/I batch support cannot continue because the PSB name used as the DB2 authorization ID begins with the character string SYSADM which is not allowed.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is a site problem. A PSB name beginning with SYSADM is being used as the authorization ID.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The PSB= parameter of the job step execute statement indicates the PSB name used. Register 3 plus X'34' is the authorization ID specified.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54, 55.

00D44036

Explanation: The DB2-DL/I batch support cannot continue because the authorization ID has been changed by the application program.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is a site problem. The application program has modified the authorization ID.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The authorization ID saved by DB2 does not match the value in ASXBUSER. Control block modification has occurred. Register 3 plus X'34' is the changed value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54, 55.

00D44037

Explanation: The DB2-DL/I batch support cannot continue because the stack of save areas has been exhausted. The error can occur when multiple levels of recursion have been invoked.

This abend reason code is issued by the following CSECTS:

DSNMTV03 DSNMTV04 DSNMTV05

System Action: The DB2-DL/I batch support cannot

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continue and processing is terminated.

Operator Response: Notify the system programmer

System Programmer Response: This might be a multiple recursion problem caused by the execution of a changed data capture exit.

Problem Determination: Verify that the user exit(s) are not being recursively invoked during a data base update operation.

00D44038

Explanation: The DB2 IMS Attach facility attempted to notify the IMS subsystem that captured DB2 table data is ready for propagation. However, the IMS exit manager was not available for notification.

This abend reason code is issued by the following CSECT: DSNMTV03

System Action: DB2 propagation processing is abnormally terminated.

User Response: Notify the system programmer.

System Programmer Response: This is a site problem. The required release of IMS is not available.

Problem Determination: Verify that the IMS release that supports data propagation from DB2 to IMS is installed.

00D44039

Explanation: The DB2-DL/I batch support cannot continue because the record format (RECFM) for the DDOTV02 output data set has a format of fixed or fixed block.

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

System Programmer Response: Change the RECFM parameter in the DCB from fixed 'F' or fixed blocked 'FB' to variable 'V' or variable blocked 'VB'. Specify LRECL=4092 and a BLKSIZE of at least LRECL+4. Then rerun the job.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Check the DDOTV02 DD for the proper DCB-RECFM value of 'V' or 'VB'.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00D44050

Explanation: The DB2-DL/I batch support cannot continue because a DB2 prepare problem was detected.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The WAL control block in the dump contains an IMS attach trace table. The last entry in the trace table will have an ID of PREP. The CALL STATUS contains the two-byte return code and four-byte reason code of the failure.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54, 55.

00D44051

Explanation: The DB2-DL/I batch support cannot continue because a DB2 commit continue problem was detected.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The WAL control block in the dump contains an IMS attach trace table. The last entry in the trace table will have an ID of COMC. The CALL STATUS contains the two-byte return code and four-byte reason code of the failure.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54, 55.

00D44052

Explanation: The DB2-DL/I batch support cannot continue because a DB2 abort problem was detected.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal error. Refer to Part 2 of *DB2 Diagnosis Guide and*

Reference for information on identifying and reporting the problem.

Problem Determination: The WAL control block in the dump contains an IMS attach trace table. The last entry in the trace table will have an ID of ABRT. The CALL STATUS contains the two-byte return code and four-byte reason code of the failure.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54, 55.

00D44053

Explanation: The DB2-DL/I batch support cannot continue because a DL/I XRST call problem was detected.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an application program error. Check the PCB status code for a nonblank value, validate the PCB used for the call, and validate the parameters passed by the call. Correct the application program and resubmit the job.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Follow normal IMS debugging techniques to gather the IMS documentation.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54, 55.

00D44054

Explanation: The DB2-DL/I batch support cannot continue because an IMS XRST call problem was detected. An XRST call, if issued, must be issued before any SQL call is issued; only one XRST call should be issued.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an application program error. Correct the application program so it will issue the XRST call before any SQL statements are processed. Then resubmit the job. Also make sure only one XRST call is issued by the application program.

Check the DDOTV02 data set to see if an INDOUBT unit of recovery has been erroneously aborted.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Follow normal IMS debugging techniques to gather the DL/I documentation.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54, 55.

00D44055

Explanation: The DB2-DL/I batch support cannot continue because an IMS CHKP call problem was detected by IMS.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an application program error. Check the PCB status code for a nonblank value, validate the PCB used for the call, and validate the parameters passed by the call. Correct the application program and resubmit the job.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Follow normal IMS debugging techniques to gather the IMS documentation.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54, 55.

00D44056

Explanation: The DB2-DL/I batch support cannot continue because an IMS ROLL or ROLB call problem was detected by IMS.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an application program error. Check the PCB status code for a nonblank value, validate the PCB used for the call, and validate the parameters passed by the call. Correct the application program and resubmit the job.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D44057

Problem Determination: Follow normal IMS debugging techniques to gather the IMS documentation.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54, 55.

00D44057

Explanation: The DB2-DL/I batch support cannot continue because an IMS call problem was detected by the DB2-DL/I batch support. An IMS SYNC, ROLS, or SETS call is not allowed.

This abend reason code is issued by the following CSECT: DSNMTV05

System Action: The DB2-DL/I batch support cannot continue and processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an application program error. Correct the application program to use supported IMS calls and resubmit the job.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Follow normal IMS debugging techniques to gather the IMS documentation.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 32, 54, 55.

Chapter 42. X'D6.....' codes

00D60001

Explanation: DB2 detected an inconsistent condition. The index entry for a LOB does not point to a valid LOB in the auxiliary table. The error is probably caused by an extra index entry, but it could also result from a table update not being redone when it should have been or from a point-in-time recovery.

This abend reason code is issued by the following CSECTs: ??

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the index page. Run the CHECK utility to identify the extent of index inconsistency.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 31, 32, 33, 41, 42.

00D60100

Explanation: DB2 detected an inconsistent condition. The index entry for a LOB does not point to a valid LOB in the auxiliary table. The error is probably caused by an extra index entry, but it could also result from a table update not being redone when it should have been or from a point-in-time recovery.

This abend reason code is issued by the following CSECTs: ??

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Message DSNI013I is issued to identify the index page. Run the CHECK utility to identify the extent of index inconsistency.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 31, 32, 33, 41, 42.

00D60801

Explanation: Available LOB space exceeded. The amount of space allowed for processing LOB values by a user or for a system has been exceeded.

This reason code is issued by the following CSECTs: ??

System Action: The operation is not allowed. DB2 returns 'resource not available' to its invoker.

System Programmer Response:

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued. Message DSNT500I or message DSNT501I may also be issued. For more information, refer to the Part 2, "SQL return codes," on page 11 or to the description of the DSNT500I and DSNT501I messages in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00D60802

Explanation: Available LOB locator space exceeded. The amount of space allowed for processing LOB locators by a user or for a system has been exceeded.

This reason code is issued by the following CSECTs: ??

System Action: The operation is not allowed. DB2 returns 'resource not available' to its invoker.

System Programmer Response:

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued. Message DSNT500I or message DSNT501I may also be issued. For more information, refer to the Part 2, "SQL return codes," on page 11 or to the description of the DSNT500I and DSNT501I messages in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00D60803

Explanation: An attempt was made to access a value in a column with one of the LOB data types (BLOB, CLOB, DBCLOB), but the value of the column is no longer valid.

This reason code is issued by the following CSECTs: ??

System Action: The operation is not allowed. DB2 returns 'resource not available' to its invoker.

System Programmer Response: Use the CHECK

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LOB utility to identify the invalid LOBs. Use update to replace or delete to remove the invalid LOBs.

3, 5.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued. Message DSNT500I or message DSNT501I may also be issued. For more information, refer to the Part 2, "SQL return codes," on page 11 or to the description of the DSNT500I and DSNT501I messages in Chapter 18, "DSNT... Messages," on page 417.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00D60C02

Explanation: Auxiliary index entry not found. An attempt was made to access an auxiliary index, but the entry was missing. This could be caused by not recovering all the table spaces in the a table space set to the same point in time.

This reason code is issued by the following CSECTs: ??

System Action: The operation is not allowed.

System Programmer Response: Use the CHECK DATA to determine the rows of the table which are inconsistent. Use SQL UPDATE or DELETE to correct these errors.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The requested operation is not performed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00D60C03

Explanation: Unable to access a LOB data page because it is not formatted or it belongs to another LOB.

This reason code is issued by the following CSECTs: ??

System Action: The operation is not allowed.

System Programmer Response: Run CHECK LOB to determine the extent of the inconsistency.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The requested operation is not performed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1,

Chapter 43. X'D7.....' codes

00D70001

Explanation: Either the data space manager (DSM) subcomponent of DB2 could not access some storage group definition, or the storage group contains no volume IDs. Possible sources of the error include use of an incorrect name for the storage group and removal of all volume IDs via ALTER STOGROUP without providing new ones.

This reason code is issued by the following CSECT: DSNPGSGI

System Action: A 'resource not available' code is returned to the caller.

User Response: If you are unable to resolve the problem yourself, notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, check the SQLCA for the name of the storage group. Check this storage group (via an SQL SELECT on SYSIBM.SYSSTOGROUP) to ensure that it exists. Check for associated SYSIBM.SYSVOLUMES table entries to see if any volume IDs exist for this storage group. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Obtain output listing from SELECT * FROM SYSIBM.SYSSTOGROUP and SELECT * FROM SYSIBM.SYSVOLUMES, details of the request that resulted in this code, and contents of the SQLCA. Also obtain operator's console sheet showing related messages, if any. Use this documentation to determine the cause of the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 14, 15, 32, 35.

00D70002

Explanation: The required data sets are not available to DB2. This is probably a user error. For example, the user might have forgotten to create the needed VSAM data clusters using access method services before issuing a CREATE TABLESPACE request with the USING VCAT parameter.

System Action: A 'resource not available' code is returned to the end user.

User Response: If you are unable to resolve the problem, notify the system programmer or database administrator.

System Programmer Response: Take one or both of these actions:

- Make the needed data set available.
- Be sure it is cataloged in the appropriate integrated catalog facility (ICF) catalog.

The data set names appear in the SQLCA, in the DSNP-prefixed message that contained this code, or in an earlier DSNP-prefixed message for the same user (same connection and correlation IDs).

If the data set name is correct, is cataloged, and appears in the VTOC, run the access method services DIAGNOSE command on the integrated catalog facility (ICF) catalog identified by the first qualifier of the data set name. The DIAGNOSE command is described in *DFSMS/MVS: Access Method Services for the Integrated Catalog*.

Problem Determination: Obtain the following information to determine the cause of the problem:

- Listings of the integrated catalog facility (ICF) catalog and VTOC showing the data set
- Details of the request that led to this code
- The contents of the SQLCA
- The operator's console sheet showing any related messages

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 10, 12, 14, 15, 32, 35.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECTS:

DSNPCLO0 DSNPCTC DSNPCTD DSNPCTO
DSNPCTE

00D70003

Explanation: Some or all of the data sets already exist. The data space manager (DSM) subcomponent of DB2 has discovered the preexistence of a data set having the same name as one it was about to create. The name of the data set appears in the SQLCA and/or in message DSNP002I (DEFINE FAILED FOR data-set-name) or DSNP023I (RENAME NEW DATASET SHOULD NOT EXIST FOR data-set-name). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for data set naming conventions.

This may occur if a user creates a data set with VSAM

access method services (intending to use it for a table space or index), then creates the table space or index via SQL CREATE statement, but forgets to specify USING VCAT.

Another possibility is that the data set remained from some prior, unsuccessfully completed DROP or DELETE or backout operation of DB2. This failure would probably occur if the data set or integrated catalog facility (ICF) catalog were unavailable at the time of the DROP or DELETE or backout. For example, packs may be offline, or other operational problems may exist. In this case, the table space would be dropped, but the data sets could remain and be brought back online at a later time.

There should have been some indication of this type of failure at the time it occurred. (for example, some DSNP-prefixed message indicating the data set was not deleted). You might check recent console sheets for such a message; however, it may have happened a long time ago.

This reason code is issued by the following CSECTs: DSNPDFN1 DSNPRNM0

System Action: Error indication is returned to the end user.

User Response: If you are unable to resolve the problem yourself, notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, either use access method services to delete the data set or use a different name for the table or index you are trying to create.

If the data set name is correct, is cataloged, and appears in the VTOC, run the access method services DIAGNOSE command against the integrated catalog facility (ICF) catalog identified by the first qualifier of the data set name. The DIAGNOSE command is described in *DFSMS/MVS: Access Method Services for the Integrated Catalog*.

Problem Determination: Information is needed concerning the history of the use of this data set; that is, of the table space/index name in conjunction with this database name. Listings of the console, integrated catalog facility (ICF) catalog, and VTOC may also be needed, with details of the request that resulted in this code, and contents of the SQLCA. Also obtain operator's console sheet showing related messages, if any. Use this documentation to determine the cause of the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 10, 12, 14, 15, 32, 35.

00D70004

Explanation: Certain data set(s) are pending deletion. Creation of a new data set is blocked by the presence of the name on a drop list. This is usually a user error. It usually occurs when the user has dropped an old object (table space, index, and so forth) and then attempted to redefine it without committing the drop.

This reason code is issued by the following CSECTs: DSNPCPS0, DSNPDFN1

System Action: Error indication is returned to the user.

User Response: You must commit the drop prior to redefining. Notify the system programmer or database administrator, if necessary.

System Programmer Response: The user must commit the drop of the data set on the drop list. Collect the materials listed in the Problem Determination section of this message to determine the specific cause of the problem.

Problem Determination: Documentation is needed showing activities from the last committed action up to and including details of the request that resulted in this code. You also need to examine the contents of the SQLCA. Also obtain operator's console sheet showing related messages, if any. Use this documentation to determine the cause of the problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 14, 32, 35.

00D70005

Explanation: The specified data set was access method services user-defined. It does not have the required DB2 attributes.

System Action: No action is taken with the named data set. An error code is returned and a dump is not taken.

Operator Response: Notify the system programmer.

System Programmer Response: Delete the named data set and define it with the correct attributes. Refer to Part 2 of *DB2 Installation Guide* for the correct data set definition attributes.

Problem Determination: Obtain an access method services LISTCAT for the named data set's attributes.

This reason code is issued by the following CSECTs: DSNPSCCT DSNPSCCT0

00D70006

Explanation: The data sets are not owned by this DB2 subsystem. The data sets backing a table space or index can be deleted only by the data space manager (DSM) subcomponent of the DB2 subsystem that created them or by one having the same authorization ID at the time of installation. This is a safety feature to restrict DSM from deleting data sets that might have been created by the user but that have a name that matches the one we are trying to delete. This safety feature also prevents the deletion of data sets that might have been created by some other DB2 subsystem and that are still needed there.

This reason code is issued by the following CSECTs: DSNPDLT1 DSNPDLTE

System Action: The data sets remain intact.

User Response: If you are unable to resolve the problem yourself, notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, check the name of the data sets in question. Delete those names, then issue appropriate DROP and DELETE requests on the DB2 subsystem that created them (see the 'OWNER' parameter in the integrated catalog facility (ICF) catalog entry for the data set), or issue access method services DELETE CLUSTER statements directly.

Problem Determination: Obtain integrated catalog facility (ICF) catalog and VTOC listings, details of the request that resulted in this code, and contents of the SQLCA. Also obtain operator's console sheet showing related messages, if any. This documentation will assist you in determining the cause of the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 10, 12, 14, 15, 32, 35.

00D70007

Explanation: The specified data set must be cataloged in an ICF catalog. It was found in a non-ICF catalog.

This reason code is issued by the following CSECTs: DSNPSC0 DSNPSC1 DSNPSC2

System Action: No action is taken with the named data set. An error code is returned and a dump is not taken.

Operator Response: Notify the system programmer.

System Programmer Response: Delete the named data set and re-DEFINE using an ICF catalog

Problem Determination: Obtain an access method series LISTCAT for the named data set's catalog types. Refer to Part 2 of *DB2 Installation Guide* for the correct catalog usage.

00D70008

Explanation: During allocation, DB2 detects that the attributes for the data set were incorrect. This data set requires the extended addressability attribute defined through DFSMS.

System Action: Error indication is returned to the end user and a dump is not taken.

User Response: Notify the system programmer or storage administrator.

System Programmer Response: To be larger than 4 GB, this data set must belong to a DFSMS data class that is defined with the extended addressability attribute. Specify EXT in the DATA SET NAME TYPE field of the DATA SET CLASS DEFINE panel of DFSMS and make sure the automatic class selection routine associates this data set with this data class.

Problem Determination: Obtain the data set attribute information from the corresponding SMS data class for the named data set.

00D70009

Explanation: The specified data set was access method services user-defined. It does not have the required DB2 attributes. The data set was defined with a Control Interval (CI) size that is incompatible with the page size. A compatible CI size is either 4K or the page size. For example, if the page size is 32K, the ControlIntervalSize parameter in the Define command should be specified with either 4K or 32K. DB2 recommends the use of the page size as the Control Interval size.

System Action: A 'resource not available' code is returned to the user. This reason code and the data set name are made available to the user in the SQLCA.

User Response: Delete the data set that was named and redefine it with the correct CI attributes. Refer to Part 2 of *DB2 Installation Guide* for the correct data set definition attributes.

System Programmer Response: Ensure that the data set is defined with the compatible CI size, which is 4K or its page size.

Problem Determination: Obtain an access method services LISTCAT for the named data set's attributes.

00D70010

Explanation: This is an internal error. An attempt to extend a data set failed because a problem was detected in the DSM notify process.

System Action: The data sharing extend is incomplete.

Operator Response: Notify the system programmer or database administrator.

00D70011 • 00D70013

System Programmer Response: For additional information, see the description of message DSNP0211.

Problem Determination: Obtain the console sheet showing the associated DSNP0211 message and any related messages preceding that message.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECTS:
DSNPXTN0 DSNPNUX1 DSNPNUX2

00D70011

Explanation: The data space manager (DSM) subcomponent of DB2 has been requested to extend a table space or index space, but the table space or index space has already been extended to its maximum size. The size of a partition depends on the number of partitions, and can be 1, 2 or 4GB. If the table space or index space is not partitioned, the maximum size is 64GB (32 data sets—'pieces'—of 2 GB each). The maximum size for an NPI for a large partitioned table space is 512GB (128 data sets of 4GB each).

For the name of the data set from which the name of the table space, index space, and/or partition can be derived, see message DSNP0011 or DSNP0071 and/or the SQLCA. Refer to Part 2 (Volume 1) of *DB2 Administration Guide* for data set naming conventions.

This reason code is issued by the following CSECT:
DSNPXTN0

System Action: No extension is done. Whatever operation was in progress is terminated and uncommitted activities are backed out.

User Response: If you are unable to resolve the problem yourself, notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, if the table space is partitioned and there is space in other partitions, you may be able to redefine the table space with new partitioning parameters so that the data that has overloaded this partition is directed to others. If the table space is not partitioned, you probably have more than one table residing in this table space. Define another table space, unload this one, then reload the tables into the separate spaces. (Be aware that this is a very large amount of data to move. Careful planning is recommended.)

Problem Determination: If you believe the table space or index space has not yet reached maximum size, provide listings of the console, integrated catalog facility (ICF) catalog, and VTOC. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 2, 10, 12, 14, 15, 32, 35.

00D70012

Explanation: A password or security error has occurred. An attempt to access a integrated catalog facility (ICF) catalog entry for a cluster (data set) failed because of some security violation. This is probably a user error. It may be caused either by the incorrect specification of a password or the changing of the password in the DB2 catalog (via SQL ALTER) but not in the integrated catalog facility (ICF) catalog (via access method services ALTER) or vice versa.

This reason code is issued by the following CSECTS:

DSNPAVLR DSNPSCTD DSNPSCT0

System Action: A 'resource not available' code is returned to the end user.

User Response: Ensure that the correct password is being used. If you are unable to resolve the problem yourself, notify the database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, check the passwords and/or RACF authorizations.

Problem Determination: Obtain output from SQL SELECT * FROM SYSIBM.SYSTABLESPACE and (if storage group related) SELECT * FROM SYSIBM.SYSSTOGROUP. Also obtain integrated catalog facility (ICF) catalog listing, details of the request that resulted in this code, and contents of the SQLCA. Also obtain operator's console sheet showing related messages, if any. This documentation will assist you in determining the cause of the problem if it is not merely an incorrect password. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 10, 14, 15, 32, 35.

00D70013

Explanation: A required integrated catalog facility (ICF) catalog does not exist or is inaccessible. An attempt to access an integrated catalog facility (ICF) catalog entry for a cluster (data set) failed. This is probably a user error.

System Action: A 'resource not available' code is returned to the end user.

User Response: If you are unable to resolve the problem, notify the system programmer or database administrator.

System Programmer Response: Do the following:

- Check that the proper catalog name was specified and is available to DB2.
- Check the associated DSNP012I message on the operator's console for the integrated catalog facility (ICF) return and reason codes.
- See the description of DSNP012I.
- Look for any related messages on the console sheet.
- Refer to the appropriate MVS publication for a description of message IDC3009I.

Problem Determination: Obtain the following to help you determine the cause of the problem:

- Details of the request that resulted in this code
- Contents of the SQLCA

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 10, 14, 32, 35.

This reason code is issued by the following CSECTs:

DSNPDLT1 DSNPSTC DSNPSTC DSNPSTC DSNPSTC
DSNPDLTE

00D70014

Explanation: An attempt to extend a data set failed, because a problem was detected in media manager services.

This reason code is issued by the following CSECT:
DSNPXTN0

System Action: Abort the request.

User Response: Notify the operator, system programmer, or database administrator.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, check the packs available to the data set. They may merely be full or the data set may have reached its maximum allowable extents. For additional information, see the description of message DSNP001I.

Problem Determination: Obtain console sheet showing associated DSNP001I, DSNO007I, or DSNP011I messages and any related messages preceding them. This documentation will assist you in determining the cause of the problem. For additional information, see the description of these messages.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 4, 5, 10, 12, 14, 32, 35.

00D70015

Explanation: An attempt to update the high-used RBA for a data set failed in media manager services.

This reason code is issued by the following CSECTs:

DSNPIPP DSNPRSP0 DSNPRST0 DSNPXTN0

System Action: Abort the request.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator (DBA), if appropriate. The DBA should be made aware of the extend problem. However, this is probably a system problem.

Problem Determination: Obtain console sheet showing associated DSNP001I, DSNO007I, or DSNP011I messages and any related messages preceding them. This documentation will assist you in determining the cause of the problem. For additional information, see the description of these messages.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 4, 5, 10, 12, 14, 32, 35.

00D70016

Explanation: This is an internal error. An attempt to extend a data set failed because a problem was detected in the DSM notify process.

System Action: The data sharing extend is incomplete.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: For additional information, see the description of message DSNP021I.

Problem Determination: Obtain the console sheet showing the associated DSNP021I message and any related messages preceding that message.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECTs:
DSNPNUX1, DSNPNUX2

00D70017

Explanation: An error occurred while attempting to obtain information from an integrated catalog facility (ICF) catalog.

System Action: The request is terminated.

System Programmer Response: Ensure that the proper packs and catalog are online and operating correctly. See message DSNP012I.

00D70018 • 00D70021

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 4, 5, 10, 14, 32, 35.

This reason code is issued by the following CSECTs:

DSNPAVLR DSNPCLO0 DSNPSCTC DSNPSCTD
DSNPSCT0

00D70018

Explanation: This is a DB2 internal error. One of the following circumstances has occurred:

- A data set inquiry function was called for a partitioned table space or index space. Its function applies only to nonpartitioned table spaces or index spaces.
- The reset function of data space manager (DSM) was called on a table space that had been opened incorrectly.

This reason code is issued by the following CSECTs:
DSNPGNP0, DSNPRST0

System Action: Abort the request.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the materials listed in the Problem Determination section of this message. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Request a dynamic dump. In the dump, the second parameter passed to the data set inquiry function identifies the table space or index space. The third parameter is the table space or index space object descriptor block (OBD). The OBD indicates whether or not the table space or index space is partitioned. If it is partitioned, the calling module is in error. If it is not partitioned, the test in the data set inquiry function must be at fault.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 10, 14, 15, 32, 35

00D70019

Explanation: The data space manager (DSM) subcomponent of DB2 could not release the extend lock it acquired against a data set during an attempt to extend that data set.

This reason code is issued by the following CSECT:
DSNPXTN0

System Action: The SQL request that led to the abend is terminated, and the unit of recovery that issued the request is backed out.

Operator Response: Notify the system programmer.

System Programmer Response: Investigate the DSM messages associated with this condition (at least message DSNP015I) for clues to the problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This problem is probably the result of either: (1) an attempt by DSM to free a lock it did not hold or, (2) a problem in IRLM. The IRLM return and reason codes appear in the associated DSNP015I message. For additional information, see the description of this message.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 4, 5, 10, 14, 32, 35.

00D70020

Explanation: This is probably an internal error. An attempt to extend a data set failed because a problem was detected in media manager services during the DSM notify process.

System Action: The request is terminated.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: For additional information, see the description of message DSNP021I.

Problem Determination: Obtain the console sheet showing the associated DSNP021I message and any related messages preceding that message.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT:
DSNPNUX1

00D70021

Explanation: The data space manager (DSM) subcomponent of DB2 could not write a required log record.

This reason code is issued by the following CSECT:
DSNPDFN1

System Action: Abort the request.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the materials listed in the Problem Determination section of this message. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 14, 32, 33, 35.

00D70022

Explanation: The data space manager subcomponent of DB2 is unable to acquire a needed lock. The extend request can not be completed.

This reason code is issued by the following CSECT: DSNPXTN0

System Action: Abort the request.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain documentation from message DSNP014I. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See message DSNP014I.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 14, 32, 35.

00D70023

Explanation: There is an insufficient amount of space in primary allocation to format control pages.

This reason code is issued by the following CSECT: DSNPIPP

System Action: The requested table space or index space creation is backed out.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, increase the primary allocation value in the data set that was defined directly via access method services. (This should not happen for storage group related data sets, because the DB2 interpreter ensures a sufficient setting for the primary value.)

Problem Determination: Obtain integrated catalog facility (ICF) catalog and VTOC listings, details of the request that led to this code, and contents of the SQLCA. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. Results of SQL SELECT * FROM SYSIBM.SYSTABLESPACE may also be useful. Also obtain the operator's console sheet showing related messages, if any.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 10, 12, 15, 32, 35.

00D70024

Explanation: No data sets exist for a nonpartitioned table space or index space. Because at least one existed at create time, a serious problem might have occurred for this table space or index space. The name of the data set that DB2 expected to find for the table space or index space appears in message DSNP012I and/or in the SQLCA along with the reason code.

System Action: The request is terminated.

System Programmer Response: Ensure that the data set and its pack are available to DB2 and that the data set has not been inadvertently deleted or migrated by any DASD operation.

If the data set name is correct, is cataloged, and appears in the VTOC, run the access method services DIAGNOSE command on the integrated catalog facility (ICF) catalog identified by the first qualifier of the data set name. The DIAGNOSE command is described in *DFSMS/MVS: Access Method Services for the Integrated Catalog*.

Problem Determination: Obtain the following:

- The integrated catalog facility (ICF) catalog
- The VTOC listings
- Details of the request that led to this code
- Contents of the SQLCA
- The operator's console sheet showing related messages

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 10, 12, 14, 32, 35.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECTs: DSNPCPN0 DSNPGNP0

00D70025

Explanation: An access method services request failed.

This reason code is issued by the following CSECT: DSNPAMSI

System Action: Abort the request.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: Examine messages DSNP009I and DSNP010I on the operator's console for the access method services messages they encompass. Refer to the appropriate MVS publication for information about specific access method services messages received.

Problem Determination: See the message DSNP009I description.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 10, 12, 14, 32, 35.

00D70026

Explanation: This is an internal error. An attempt to extend a data set failed because a problem was detected in the DSM notify process.

System Action: The data sharing extend did not complete.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: For additional information, see the description of message DSNP022I.

Problem Determination: Obtain the console sheet showing the associated DSNP022I message and any related messages preceding that message.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNPXTN0

00D70027

Explanation: The secondary allocation value is 0. No physical extension is done. If this occurs in a create of a segmented table, the primary allocation of the table space is not big enough to allocate the first segment. The first segment consists of a number of pages which are defined in SEGSIZE.

This reason code is issued by the following CSECT: DSNPXTN0

System Action: The request to extend the data set is terminated.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, if you intended to allow physical extension of the data set, change its secondary value to a nonzero quantity.

Problem Determination: Obtain the integrated catalog facility (ICF) catalog and VTOC listings, and (if storage group-defined) the output from SELECT * FROM SYSIBM.SYSSTOGROUP. Also obtain details of the request that resulted in this code, contents of the SQLCA, and the operator's console sheet showing related messages, if any.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 10, 12, 14, 15, 32, 35.

00D70028

Explanation: An HSM request for the recall of a migrated data set failed.

This abend reason code is issued by the following CSECT: DSNPHRC0

System Action: The HSM recall is aborted by data space manager and control returns to the function that issued the recall request. The higher level function will not necessarily terminate processing since the data set may have already been recalled.

Operator Response: If processing was terminated, notify the system programmer or database administrator.

System Programmer Response: If processing was terminated, investigate the reason for the HSM failure via messages issued to the MVS operator's console. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Refer to the problem determination section(s) of the associated DB2 and HSM messages which were issued to the MVS operator's console.

Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 1.

00D70030

Explanation: Unexpected reason code was received from some DB2 subcomponent invoked by data space manager (DSM).

Almost any DSNP module can issue this reason code.

System Action: Abort the request.

Operator Response: Notify the system programmer.

System Programmer Response: There is not much the system programmer can do here, but see register 2 in the accompanying dump for the unexpected code. Its description may provide a clue to the type of problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Obtain a listing of the SQL request that resulted in this code and a listing of the contents of the SQLCA. Also obtain operator's console sheet showing related messages, if any. There should be at least one DSNP-prefixed message containing the '00D70030' code. Messages preceding it from other subcomponents (having other prefixes beginning with DSN) may provide additional details about the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 14, 32, 35.

00D70040

Explanation: An attempt to rename an existing data set failed, because a name does not conform to the naming convention.

This reason code is issued by the following CSECTs: DSNPRNMO DSNPDLTE

System Action: Error indication is returned to the end user.

User Response: Notify the system programmer.

System Programmer Response: Notify the database administrator if appropriate.

Problem Determination: This problem probably arises during execution of the REORG utility with SHRLEVEL REFERENCE or CHANGE. See message DSNP0271 or DSNP0261.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 10, 12, 14, 15, 32, 35.

00D70041

Explanation: An attempt to rename an existing data set failed.

This reason code is issued by the following CSECT: DSNPRNMO

System Action: Error indication is returned to the end user.

User Response: Notify the system programmer.

System Programmer Response: Notify the database administrator if appropriate.

Problem Determination: This problem probably arises during execution of the REORG utility with SHRLEVEL REFERENCE or CHANGE. See message DSNP0271.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 10, 12, 14, 15, 32, 35.

00D70042

Explanation: An attempt to rename an existing data set failed, because the old and new names are not compatible. This problem might arise in one or both of the following situations:

1. One data set name is a DB2 page set data set name and another data set name is a non-DB2 page set data set name.
2. Both are DB2 page set data set names, but there is a mismatch in the catalog alias names, the database names, or the table space/index space names.

This reason code is issued by the following CSECT: DSNPRNMO

System Action: Error indication is returned to the end user.

User Response: Notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate.

Problem Determination: This problem probably arises during execution of the REORG utility with SHRLEVEL REFERENCE or CHANGE. See message DSNP0271.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 10, 14, 15, 32, 35.

00D70043

Explanation: During the define cluster for a undefined data set, DB2 detected that the specified data set requested to be defined already exists.

System Action: A 'resource not available' code is returned to the end user.

User Response: Delete the existing cluster and rerun the job.

00D70046

Explanation: This is an internal error. An attempt to extend a data set failed because an error is detected. The high used page number of the pageset recorded in DB2 does not match the high used control interval from the integrated catalog facility (ICF) catalog.

System Action: The data sharing extend did not complete.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: For additional information, see the description of message DSNP0071.

Problem Determination: Obtain the console sheet showing the associated DSNP0071 message. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D70051

Explanation: One of the following is issued on a ROSHARE OWNER database:

- A CREATE TABLESPACE statement
- A CREATE INDEX statement, or
- The REORG utility with SHRLEVEL REFERENCE or SHRLEVEL CHANGE using user-managed data sets

However, the data sets are not defined with VSAM SHAREOPTIONS(1,3).

System Action: An SQLCODE -731 is returned to the end user (for CREATE TABLESPACE or INDEX) The

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CREATE TABLESPACE or INDEX statement or the REORG utility is not executed.

User Response: Use AMS ALTER SHAREOPTIONS to alter the data set to SHAREOPTIONS(1,3) and resubmit the CREATE TABLESPACE or INDEX statement or the REORG utility.

00D70052

Explanation: An ALTER DATABASE statement is issued to convert a database to ROSHARE OWNER. But, within this database, at least one user defined data set is not defined with VSAM SHAREOPTIONS(1,3). All user-defined data sets that are within this database must be converted to SHAREOPTIONS(1,3) before the database can be altered to ROSHARE OWNER.

This reason code is issued by the following CSECT: DSNPATSO

System Action: An SQLCODE -731 is returned to the end user and the ALTER DATABASE statement is not performed.

User Response: Use AMS ALTER SHAREOPTIONS to alter all user-defined data sets that are within this database to SHAREOPTIONS(1,3), and resubmit the ALTER DATABASE statement.

00D70100

Explanation: A requested resource is not available. Either the data space manager (DSM) or some subcomponent that it invoked discovered that some resource is not available. The name and type of the resource and the reason it is unavailable are placed in the CT control block by the subcomponent that made the discovery. This information is made available to the end user in the SQLCA and/or messages. The reason code in the CT/SQLCA contains the identifier of the subcomponent that discovered the problem.

Almost any DSNP module can issue this reason code.

System Action: Abort the current request.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, determine what resource was unavailable (from SQLCA information) and, if it is something you can control, make it available. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See the Problem Determination section in the description of the code that appears in the SQLCA or CTRURES field of the CT and/or in the description of any associated console messages. Obtain details of the request that resulted in this code, and contents of the SQLCA. Also obtain

operator's console sheet showing related messages, if any.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 14, 32, 35.

00D79999

Explanation: A severe error has occurred. For example, an invalid data space manager (DSM) function is invoked.

Almost any data space manager (DSM) function can issue this reason code.

System Action: Abort the request.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Obtain the console sheet, dump, details of the request that led to this code, and contents of the SQLCA. Use these in conjunction with the procedures in Part 2 of *DB2 Diagnosis Guide and Reference*.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 14, 32, 35.

Chapter 44. X'D9.....' codes

00D90000

Explanation: A recovery manager module received control from its FRR for retry and found an invalid retry point identifier. The name of the module in which the failure occurred appears in the SYS1.LOGREC entry showing this reason code in register 15.

System Action: Standard DB2 diagnostic information is provided. The error is recorded in SYS1.LOGREC, an SVC dump is scheduled, and DB2 subsystem termination is requested. The subsystem termination reason code reflects the function for which retry was unsuccessfully attempted.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: This is a secondary subsystem error. Obtain a copy of SYS1.LOGREC and the SVC dump for this failure and for the original failure that resulted in the retry attempt.

Problem Determination: Examine the SYS1.LOGREC information and the dumps from both the original failure and this second failure to determine if the recovery parameter area was damaged or if retry incorrectly restored registers for the mainline module.

00D90003

Explanation: A failure occurred while DB2 was attempting to open an object in the shared communications area (SCA).

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Operator Response: Ensure the coupling facility for the SCA is available, and restart DB2.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRIT03

00D90004

Explanation: An error occurred while DB2 was attempting to create a service task.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is

requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRIT03

00D90010

Explanation: During the process of re-enabling data sharing, all members, other than the surviving member, are forced to cold start. In the process of setting up the cold start for this member, an active conditional restart control record was discovered in the BSDS. This record could not have been in the BSDS when data sharing was disabled, and this DB2 should have been inactive since data sharing was disabled; therefore, it is unclear what the conditional restart control record is requesting.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

System Programmer Response: Use the change log inventory (DSNJU003) utility to cancel the active conditional restart control record in this member's BSDS.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 16.

This abend reason code is issued by the following CSECT: DSNRRGRI

00D90011

Explanation: DB2 determined that the version of the shared communications area (SCA) recorded within the SCA did not match the version of the SCA returned from MVS.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in

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DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRRGRI

00D90012

Explanation: An error occurred while DB2 was attempting to create a service task.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRRGRI

00D90013

Explanation: The restart parameters for TRKRSITE are invalid. If TRKRSITE is YES on DSNZPARM and this DB2 subsystem has not successfully restarted in this 'Tracker Recovery cycle', DB2 requires special conditions before it can restart.

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump, and contact the system programmer.

System Programmer Response: Ensure that the Conditional Restart Control Record is correct, then restart DB2. You can run the Print Log Map Utility (DSNJU004) to examine the current Conditional Restart record. The following conditions are correct:

- BACKOUT = NO
- FORWARD = NO
- Either an ENDRBA value for non-data sharing or an ENDLRSN value for data sharing. In data sharing, the ENDLRSN value must be the same for all members restarting in this 'Tracker Recovery cycle'.

To avoid a cold start or log skipping in a tracker site, ensure that STARTRBA has no specified value. You can create or modify the Conditional Restart parameters with the Change Log Inventory Utility (DSNJU003). See *DB2 Utility Guide and Reference* for more information on these utilities.

00D90014

Explanation: The System Level Recovery restart was invalid. All members of the data sharing group must truncate their logs with the same LRSN value that was specified in the SYSPITR conditional restart parameter.

System Action: DB2 startup terminates.

Operator Response: Collect the SYS1.LOGREC and SVC dump, and contact the system programmer.

System Programmer Response: Ensure that the conditional restart control record is correct, and then restart DB2. You can run the Print Log Map utility (DSNJU004) to examine the current conditional restart record.

00D9001F

Explanation: An invalid function code was passed to a DB2 service task.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRRUTT

00D90020

Explanation: During the process of re-enabling data sharing, the surviving member of the previous data sharing disable must be the first member started. An attempt was made to start a member other than the surviving member during the process of re-enabling data sharing.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Operator Response: To initiate the data sharing re-enable process, start the surviving member of the previous data sharing disable first.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRRSBS, DSNRRGRC

00D90021

Explanation: After data sharing is disabled, only the surviving member of the group can be started. An attempt was made to start a member other than the surviving member.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRRSBS

00D90022

Explanation: After reading information from the BSDS of a peer member in its data sharing group, this DB2 was not able to close the peer's BSDS.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRRGRC, DSNRRINI, DSNRRSBS

00D90050

Explanation: Data sharing re-enable is cancelled.

This DB2 member was cancelled while waiting for other members of the data sharing group to complete their re-enable processing.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Operator Response: To re-enable data sharing, start the surviving member again.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRRGRT

00D900E0

Explanation: A DB2 functional recovery routine invoked DB2 subsystem termination because an unrecoverable error was detected.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the original problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRNTFY

00D900E1

Explanation: The operator replied 'NO' to message DSNR020I. See message DSNR020I for more information.

System Action: DB2 terminates.

Problem Determination: This abend reason code is issued by the following CSECT: DSNRRGRC

00D900EB

Explanation: This abend reason code appears at a member, other than the surviving member, when the surviving member is not able to complete the process of re-enabling data sharing. This member cannot continue because data sharing was not re-enabled successfully.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: Determine why the surviving member was not able to complete the data sharing re-enable.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D900EC • 00D900F4

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRCRPR

00D900EC

Explanation: During the process of re-enabling data sharing, a member other than the surviving member was not able to complete its portion of the re-enabling process.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRCRPR

00D900F1

Explanation: DB2 received an error while attempting to read shared communications area (SCA) information from the coupling facility.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

System Programmer Response: Correct the problem with the coupling facility, and restart DB2.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRCRPR, DSNRIT02, DSNRIT03, DSNRNTFY, DSNRRGRC, DSNRRGRH, DSNRRGRI, DSNRRGRT, DSNRRSBS, DSNRSCA

00D900F2

Explanation: DB2 received an error while attempting to write shared communications area (SCA) information to the coupling facility.

System Action: Standard DB2 diagnostic information

is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

System Programmer Response: Correct the problem with the coupling facility, and restart DB2.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRIT02, DSNRIT03, DSNRRGRC, DSNRRGRH, DSNRRGRI, DSNRRGRT, DSNRRSBS, DSNRSCA

00D900F3

Explanation: DB2 received an error while attempting to read the BSDS.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

System Programmer Response: Correct the problem with the BSDS, and restart DB2.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 16, 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRRGRI, DSNRRINI, DSNRSCA

00D900F4

Explanation: DB2 received an error while attempting to write to the BSDS.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

System Programmer Response: Correct the problem with the BSDS, and restart DB2.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 16, 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRNTFY, DSNRRGRT, DSNRSCA

00D900F5

Explanation: DB2 received an error while attempting to read the BSDS of another member in the data sharing group.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

System Programmer Response: Correct the problem with the BSDS, and restart DB2.

Problem Determination: Register 4 contains the member ID of the member whose BSDS was being read.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 16, 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRRINI

00D900F7

Explanation: DB2 received an error while attempting to acquire a lock.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump might be requested. Depending on the error, DB2 might initiate subsystem termination.

Problem Determination: Register 4 points to the resource that DB2 was attempting to lock.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRCRPR, DSNRIT02, DSNRIT03, DSNRRGRC, DSNRRGRH, DSNRRGRI, DSNRRSBS, DSNRSCA

00D900F8

Explanation: DB2 received an error while attempting to release a lock used to serialize portions of restart or group restart.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is

requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRIT02, DSNRIT03, DSNRRGRC, DSNRRGRH, DSNRRGRI, DSNRRGRT, DSNRRSBS, DSNRSCA

00D900F9

Explanation: DB2 received an error while attempting to notify other members in the data sharing group of a restart or group restart event.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNRCRPR, DSNRRGRI, DSNRRGRT

00D900FA

Explanation: The DB2 subsystem that is starting is using an unsupported level of code or does not have the proper level of SPE applied.

System Action: The DB2 subsystem terminates. An SVC dump might be requested.

System Programmer Response:

Verify that:

- The DB2 startup procedure points to the correct set of load libraries.
- The correct SPE has been applied to all active members in the group.

00D90100

Explanation: A DB2 functional recovery routine invoked DB2 subsystem termination because an unrecoverable error was detected.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is

requested before DB2 subsystem termination is initiated.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the original problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRTIMR

00D90110

Explanation: This is an internal error.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRNTFY

00D90111

Explanation: This is an internal error.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested before DB2 subsystem termination is initiated.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNRNTFY

00D92001

Explanation: The checkpoint/restart serial controller (DSNRCRSC) FRR invoked DB2 subsystem termination, because an unrecoverable error was detected while processing a request.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT: DSNRCRSC

System Action: Subsystem termination is initiated. Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the associated abend.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error, and follow the instructions associated with it.

Problem Determination: See the original error.

00D92003

Explanation: The restart request servicer (DSNRRRQS) FRR invoked DB2 subsystem termination, because an unrecoverable error was detected while processing a restart request.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT: DSNRRRQS

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D92004

Explanation: The shutdown checkpoint controller (DSNRCSHT) FRR invoked DB2 subsystem termination, because an unrecoverable error was detected while processing a shutdown checkpoint request.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT: DSNRCSHT

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of

SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D92011

Explanation: An invalid URE was found during checkpoint processing. An overlay of the URE may have occurred.

This abend reason code is issued by the following CSECT: DSNRPBCW

System Action: The checkpoint process will ABEND to prevent a damaged URE from being written out to the log, and the subsystem will be terminated. This is to prevent the loss or incorrect processing of a DB2 unit of recovery (UR). DB2 Restart will use the previous checkpoint and apply all the DB2 log records up to the point of failure. Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled.

Operator Response: Collect the SYS1.LOGREC and SVCDUMP, and notify the system programmer. Restart DB2.

System Programmer Response: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Examine the SVCDUMP and the DB2 Trace Table in the dump to determine the cause of the URE overlay.

00D92012

Explanation: An invalid RURE was found during checkpoint processing. An overlay of the RURE may have occurred.

This abend reason code is issued by the following CSECT: DSNRPBCW

System Action: The checkpoint process will abend to prevent a damaged RURE from being written out to the log, and the subsystem will be terminated. This is to prevent the loss or incorrect processing of a DB2 unit of recovery. DB2 Restart will use the previous checkpoint and apply all the DB2 log records up to the point of failure. Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled.

Operator Response: Collect the SYS1.LOGREC and SVCDUMP, and notify the system programmer. Restart DB2.

System Programmer Response: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Examine the SVCDUMP and the DB2 Trace Table in the dump to determine the cause of the RURE overlay.

00D92013

Explanation: An invalid GXID was found during checkpoint processing. An overlay of the GXID might have occurred.

System Action: The checkpoint process will abnormally terminate to prevent a damaged GXID from being written out to the log, and the subsystem will be terminated. This is to prevent the loss of or incorrect processing of a DB2 unit of recovery. DB2 restart will use the previous checkpoint and apply all the DB2 log records up to the point of failure. Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled.

Operator Response: Collect the SYS1.LOGREC and SVCDUMP, and notify the system programmer. Restart DB2.

System Programmer Response: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Examine the SVCDUMP and the DB2 Trace Table in the dump to determine the cause of the GXID overlay.

00D92021

Explanation: An invalid URE was read from the log during the current status rebuild phase of restart. Restart cannot process the damaged URE.

This abend reason code is issued by the following CSECT: DSNRPLCS

System Action: The restart processing abends, which terminates the subsystem. This is to prevent the loss or incorrect processing of a DB2 unit of recovery.

Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled. The first 4 digits of the RBA of the invalid log record is contained in register 3 and the last 8 digits in register 4.

Operator Response: Do not attempt to restart DB2 until the error is resolved. Notify the system programmer and collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

System Programmer Response: Print the BSDS using the print log map (DSNJU004) utility. Find the

checkpoint queue in the output listing from DSNJU004.

Next, run the change log inventory (DSNJU003) utility to create a conditional restart record with the CHKPTRBA option specifying the Begin checkpoint RBA found in the second entry of the checkpoint queue. Restart DB2 using the conditional restart record found. If the same failure occurs, repeat the conditional process using the next begin checkpoint RBA in the checkpoint queue.

Repeat this process, going down the checkpoint queue until DB2 restarts. This will be prior to the time when the invalid URE was written to the log. The restart process is then able to apply all the log records to the end of the log. For information on running DSNJU004 and DSNJU003, see *DB2 Utility Guide and Reference*.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D92022

Explanation: An invalid RURE was read from the log during the current status rebuild phase of restart. Restart cannot process the damaged RURE.

This abend reason code is issued by the following CSECT: DSNRPLCS

System Action: The restart processing will abend, which will terminate the subsystem. This is to prevent the loss or incorrect processing of a DB2 unit of recovery.

Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled. The first 4 digits of the RBA of the invalid log record is contained in register 3 and the last 8 digits in register 4.

Operator Response: Do not attempt to restart DB2 until the error is resolved. Notify the system programmer and collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

System Programmer Response: Print the BSDS using the print log map (DSNJU004) utility. Find the checkpoint queue in the output listing from DSNJU004.

Next, run the change log inventory (DSNJU003) utility to create a conditional restart record with the CHKPTRBA option specifying the begin checkpoint RBA found in the second entry of the checkpoint queue. Restart DB2 using the conditional restart record found. If the same failure occurs, repeat the conditional process using the next begin checkpoint RBA in the checkpoint queue.

Repeat this process, going down the checkpoint queue until DB2 restarts. This will be prior to the time when the invalid RURE was written to the log. The restart process is then able to apply all the log records to the end of the log. For information on running the DSNJU004 and DSNJU003 utilities, refer to *DB2 Utility Guide and Reference*.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D92023

Explanation: An invalid record was read from the log during the current status rebuild phase of restart. Restart cannot process the damaged log record.

System Action: The restart processing will abnormally terminate, which will terminate the subsystem. This is to prevent the loss or incorrect processing of a DB2 unit of recovery.

Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled. The first 4 digits of the RBA of the invalid log record is contained in register 3 and the last 8 digits in register 4.

Operator Response: Do not attempt to restart DB2 until the error is resolved. Notify the system programmer and collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

System Programmer Response: Print the BSDS using the Print Log Map (DSNJU004) utility. Find the checkpoint queue in the output listing from DSNJU004.

Next, run the Change Log Inventory (DSNJU003) utility to create a conditional restart record with the CHKPTRBA option specifying the begin checkpoint RBA found in the second entry of the checkpoint queue. Restart DB2 using the conditional restart record found. If the same failure occurs, repeat the conditional process using the next begin checkpoint RBA in the checkpoint queue.

Repeat this process, going down the checkpoint queue until DB2 restarts. This will be prior to the time when the invalid record was written to the log. The restart process then applies all the log records to the end of the log. For information on running the DSNJU004 and DSNJU003 utilities, refer to *DB2 Utility Guide and Reference*.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D92024

Explanation: During restart, the state of a logged unit of recovery and the state of the global transaction which the unit of recovery is part of are incompatible.

System Action: The restart processing abnormally terminates, which terminates the subsystem. This is to prevent the loss or incorrect processing of a DB2 unit of recovery.

Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled.

Problem Determination: The state of the logged unit of recovery is reported in register 1 and the state of the global transaction is provided in register 2. The meanings of these values are shown below.

Unit of recovery state (in register 1):

- | | |
|---|----------------|
| 1 | inflight |
| 2 | ensure abort |
| 3 | commit indoubt |
| 4 | ensure commit |

Global Transaction State (in register 2):

- | | |
|---|----------------|
| 1 | inflight |
| 2 | ensure abort |
| 3 | commit indoubt |
| 4 | ensure commit |

Operator Response: Do not attempt to restart DB2 until the error is resolved. Notify the system programmer and collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

System Programmer Response: Print the BSDS using the Print Log Map (DSNJU004) utility. Find the checkpoint queue in the output listing from DSNJU004.

Next, run the Change Log Inventory (DSNJU003) utility to create a conditional restart record with the CHKPTRBA option specifying the begin checkpoint RBA found in the second entry of the checkpoint queue. Restart DB2 using the conditional restart record found. If the same failure occurs, repeat the conditional process using the next begin checkpoint RBA in the checkpoint queue.

Repeat this process, going down the checkpoint queue until DB2 restarts. This will be prior to the time when the invalid record was written to the log. The restart process then applies all the log records to the end of the log. For information on running DSNJU004 and DSNJU003, see *DB2 Utility Guide and Reference*.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D93001

Explanation: The commit/abort FRR (DSNRCAFR) invoked DB2 subsystem termination, because an unrecoverable error was detected during must-complete processing for phase 2 of a commit-UR request.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECTs: DSNRCAFR, DSNRUC02

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D93002

Explanation: The DB2 subsystem is terminated because an unrecoverable error was detected during must-complete processing for phase 2 of a commit-UR request for an agent that is a participant in a global transaction.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2. Notify the system programmer.

System Programmer Response: This is probably either an error in DB2 or in the commit of the global transaction. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 records on the SYS1.LOGREC data set and requests an SVC dump. The error indicates that there may be a problem with DB2 or with the commit coordinator of the global transaction.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D9300F

Explanation: The commit/abort secondary FRR invoked DB2 subsystem termination. This occurs only if functional recovery itself fails while processing a failure during must-complete processing for phase 2 of a commit-UR request.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error. Standard DB2 diagnostic information is also recorded in

00D93011 • 00D93100

SYS1.LOGREC for the secondary error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of SYS1.LOGREC for both the original and the secondary error, and the SVC dump for the original error.

Problem Determination: See the original error.

00D93011

Explanation: A subcomponent of DB2 invoked commit when the agent state was invalid for commit-UR invocation. Commit-UR was requested for an agent that was modifying data. Either commit-UR or abort-UR was already in process, or the recovery structure (URE) was damaged.

This abend reason code is issued by the following CSECT: DSNRUC01

System Action: Abnormal termination of the agent results, including backing out (abort-UR) of its activity to the previous point of consistency. This releases all locks held by the agent for its resources.

Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled. Additional information, identified in the SDWA variable recording area by reason code '00D9CCCC', is added to the SDWA variable recording area (VRA).

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

If the agent were in a must-complete state (in-commit2 or in-abort), the DB2 subsystem is also terminated with reason code '00D93001'. When the subsystem is next restarted, recoverable activity for this agent (such as an ensure-abort or ensure-commit UR) is handled to complete the commit or abort process.

System Programmer Response: This is a DB2 subsystem error. Collect the materials mentioned in the Problem Determination section of this message.

Problem Determination: Examine the SYS1.LOGREC data and the DB2 trace table in the dump to establish whether either commit-UR was invoked incorrectly or the control structure that reflects the state (ACEPROG, UREPROG) was damaged.

00D93012

Explanation: A subcomponent of DB2 invoked commit when the agent state was invalid for commit-UR invocation. Commit-UR was invoked for an agent that was only retrieving data. Either commit-UR or abort-UR was already in process, or the ACE progress state field was damaged.

This abend reason code is issued by the following CSECT: DSNRUC01

System Action: Abnormal termination of the agent results, including backing out (abort-UR) of its activity to the previous point of consistency. This releases all locks held by the agent for its resources.

Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled. Additional information, identified in the SDWA variable recording area by reason code '00D9CCCC', is added to the SDWA variable recording area.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

System Programmer Response: This is a DB2 subsystem error. Collect the materials mentioned in the Problem Determination section of this message.

Problem Determination: Examine the SYS1.LOGREC data and the DB2 trace table in the dump to establish whether either commit-UR was invoked incorrectly or the control structure (ACEPROG) was damaged.

00D93013

Explanation: The request to commit an agent that was a participant in a global transaction failed because a mismatch between the state of the agent and the state of the global transaction. State field was damaged.

System Action: Abnormal termination of the agent occurs, including backing out (abort-UR) its activity to the previous point of consistency. This releases all resource locks held by the agent.

Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably either an error in DB2 or in the commit of the global transaction. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 records on the SYS1.LOGREC data set and requests an SVC dump. The error indicates that there may be a problem with DB2 or with the commit coordinator of the global transaction.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00D93100

Explanation: This reason code indicates that a DB2 allied agent does not need to participate in the Phase 2 (Continue Commit) call, because all required work has been accomplished during the Phase 1 (Prepare) call.

This reason code is generated by Recovery Manager when it is determined that a DB2 allied agent has not updated any DB2 resource since its last commit processing occurred.

System Action: The "yes" vote is registered with the Commit coordinator.

00D94001

Explanation: The commit/abort FRR (DSNRCAFR) invoked DB2 subsystem termination, because an unrecoverable error was detected during must-complete processing for an abort-UR request.

This is a DB2 subsystem termination reason code.

This reason code is issued by the following CSECTs: DSNRCAFR, DSNRUA02

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the reason code for the original error.

00D94002

Explanation: The DB2 subsystem is terminated because an unrecoverable error was detected during must-complete processing for an abort-UR request for an agent that is a participant in a global transaction.

This is a DB2 subsystem termination reason code.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination initiates.

Operator Response: Print SYS1.LOGREC, and restart DB2. Notify the system programmer.

System Programmer Response: This is probably either an error in DB2 or in the commit of the global transaction. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 records on the SYS1.LOGREC data set and requests an SVC dump. The error indicates that there may be a problem with DB2 or with the commit coordinator of the global transaction.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2,

00D9400F

Explanation: The commit/abort FRR invoked DB2 subsystem termination. This occurs only if functional recovery itself fails while processing a failure during must-complete processing for an abort-UR request.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error. Standard DB2 diagnostic information is also recorded in SYS1.LOGREC for the secondary error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC for both the original and the secondary error, and the SVC dump for the original error.

Problem Determination: See the original error.

00D94011

Explanation: A subcomponent of DB2 invoked abort at a point when the agent state is invalid for invoking the function that aborts units of recovery. Either abort-UR or commit-UR phase 2 was already in process, or the agent structure was damaged.

This abend reason code is issued by the following CSECT: DSNRUA01

System Action: Abnormal termination of the agent results and, because the agent is in a must-complete state, the DB2 subsystem is terminated with reason code '00D94001'. When the DB2 subsystem is restarted, recoverable activity for this agent is handled to complete the commit or abort process.

Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is scheduled. Additional information, identified in the SDWA variable recording area by reason code '00D9AAAA7', is added to the SDWA variable recording area. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

System Programmer Response: This is a DB2 subsystem error. Collect the materials mentioned in the Problem Determination section of this message.

Problem Determination: Examine the SYS1.LOGREC data and the DB2 trace table in the dump to establish whether commit-UR was invoked incorrectly or the control structure (ACEPROG, UREPROG) was damaged.

00D94012

Explanation: During rollback, the end of the log was read before all the expected log ranges were processed. The abend is accompanied by a DB2 abnormal subsystem termination with reason code 00D94001.

This reason code is issued by the following CSECT: DSNRUA02

System Action: The agent is abnormally terminated. Because the agent is in a must-complete state, the DB2 subsystem is terminated with reason code 00D94001 and message DSNV086E. Standard DB2 diagnostic information is recorded in SYS1.LOGREC. An 04E-D94012 SVC dump is requested.

Operator Response:

1. Run the print log map (DSNJU004) utility to print the content of both BSDSs.
2. Print SYS1.LOGREC.
3. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Notify your system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error. Refer to the recovery scenarios in Part 4 (Volume 1) of *DB2 Administration Guide* before restarting.

To restart DB2, you must do one of the following:

- Add the missing archive log data sets back to the BSDS with the change log inventory (DSNJU003) utility and increase the MAXARCH parameter in the DSN6LOGP member of DSNZPARM to complete the rollback, or
- Restart DB2 with a conditional restart specifying BACKOUT=NO to bypass the unit of recovery that is in-abort.

Problem Determination: At the time of the abend, registers 3 and 4 contain the 6-byte relative byte address (RBA) of the beginning of this unit of recovery. DB2 must read the log back to this point to complete the ROLLBACK of this unit of recovery.

00D94014

Explanation: A savepoint request encountered an invalid request block. This is an internal error.

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Collect all relevant diagnostic materials, including SYS1.LOGREC, SVC dump, and console output. Notify the system programmer.

Problem Determination: At the time of the abend, general register zero contains the address of the invalid SRPL request block.

00D95001

Explanation: The recovery manager's common FRR (DSNRRCFR) invoked DB2 subsystem termination, because an unrecoverable error was detected during checkpoint (DSNRCPRC) processing.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECTs: DSNRCRFR, DSNRCPRC

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D95011

Explanation: The recovery manager checkpoint (DSNRPBCW) FRR invoked DB2 subsystem termination, because an unrecoverable error was detected while performing its checkpoint functions.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT: DSNRPBCW

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D96001

Explanation: The recovery manager's restart FRR invoked DB2 subsystem termination, because an unrecoverable error was detected during the restart processor (DSNRRPRC) processing.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECTs:

DSNRCRFR DSNRRAUB DSNRRCSL DSNRRCSR
DSNRRHSL DSNRRHSR DSNRRPMU DSNRRPRC

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D96011

Explanation: The restart participation FRR invoked DB2 subsystem termination, because an unrecoverable error was detected while processing log records during restart.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT:
DSNRPBCS

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, correct the problem, and restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D96021

Explanation: The DB2 subsystem was terminated during restart because a failure occurred while attempting to read the log forward MODE(DIRECT). It is accompanied by a recovery log manager abend X'04E' with a reason code describing the specific failure.

Each time a portion of the log is skipped, a read direct is used to validate the beginning RBA of the portion that is read.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECTs:
DSNRRHSR, DSNRRCSR

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error. If possible, correct cause of original error and restart DB2. If you cannot correct the error, refer to Part 4 (Volume 1) of *DB2 Administration Guide*.

00D96022

Explanation: The restart FRR invoked abend, because, while reading the log forward during restart, the end-of-log was read before all recovery log scopes had been processed. It is followed by DB2 abnormal subsystem termination with the same reason code ('00D96022').

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT:
DSNRRHSR

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the abend before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Notify your system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error. If you cannot correct the error, refer to Part 4 (Volume 1) of *DB2 Administration Guide*.

Problem Determination: At the time of the abend, registers 2 and 3 (as shown in the dump or in SYS1.LOGREC) contain the 6-byte relative byte address (RBA) of the last log record that was read before end-of-log was encountered.

00D96031

Explanation: The restart FRR invoked DB2 subsystem termination, because a failure occurred while attempting to read the log backward MODE(DIRECT). It is accompanied by a recovery log manager abend X'04E' with a reason code describing the specific failure.

Each time a portion of the log is skipped, a read direct is used to validate the beginning RBA of the portion that is read.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT:
DSNRRAUB

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Start DB2 again.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the accompanying abend reason code.

00D96032

Explanation: During restart, the end of the log was read before all the expected log ranges had been processed. The abend is accompanied by a DB2 abnormal subsystem termination with the same reason code ('00D96032').

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT:
DSNRRAUB

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC. A 04E-D96032 SVC dump is requested. The DB2 subsystem is terminated with DSNV086E message.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.

3. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Notify your system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error. Determine where the log went. Refer to Part 4 (Volume 1) of *DB2 Administration Guide* before restarting.

Problem Determination: At the time of the abend, registers 2 and 3 contain the 6-byte relative byte address (RBA) of the last log record that was read before end-of-log was encountered.

00D96041

Explanation: The recovery manager's restart function detected an internal error.

This abend reason code is issued by the following CSECT: DSNRXRU

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the error. For more information see message DSNL429.

Operator Response: Notify the system programmer.

System Programmer Response: See message DSNL429 for more information.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00D98001

Explanation: The recovery manager's common FRR (DSNRRCFR) invoked DB2 subsystem termination, because an unrecoverable error was detected during indoubt-UR (DSNRRIPR, DSNRRIRD, DSNRRIUN, DSNRIPMU) processing.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT:
DSNRRCFR

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the original error.

00D98011

Explanation: The FRR for the resolve-indoubt-UR request servicer (DSNRIURS) invoked DB2 subsystem termination, because an unrecoverable error was detected processing a request.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT: DSNRIURS

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response: Print SYS1.LOGREC, and restart DB2.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the accompanying abend reason code.

00D98021

Explanation: The resolved indoubt FRR invoked DB2 subsystem termination because of a failure while attempting to read the log MODE(DIRECT) during forward recovery. It is accompanied by a recovery log manager abend X'04E' with a reason code describing the specific failure.

Each time a portion of the log is skipped, a read direct is used to validate the beginning RBA of the portion that is read.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT: DSNRRIRD

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Start DB2 again.

System Programmer Response: Obtain a copy of the

SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the accompanying abend reason code.

00D98022

Explanation: Resolved indoubt invoked abend when end-of-log was reached before all ranges had been processed for forward recovery. This abend is accompanied by abnormal DB2 subsystem termination with the same reason code ('00D98022').

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT: DSNRRIRD

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Start DB2 again.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: At the time of the abend, registers 2 and 3 contain the 6-byte relative byte address (RBA) of the last log record that was read before end-of-log was encountered.

00D98031

Explanation: The resolved indoubt FRR invoked DB2 subsystem termination, because a failure occurred during an attempt to read the log MODE(DIRECT) while reading the log backward. It is accompanied by a recovery log manager abend X'04E' with a reason code describing the specific failure.

Each time a portion of the log is skipped, a read direct is used to validate the begin-scope RBA of the portion that is read.

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT: DSNRRRIUN

System Action: Standard DB2 diagnostic information

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is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Start DB2 again.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: See the accompanying abend reason code.

00D98032

Explanation: Resolved indoubt FRR invoked abend when end-of-log was reached before all ranges had been processed for backward recovery. This abend is accompanied by abnormal DB2 subsystem termination with the same reason code ('00D98032').

This is a DB2 subsystem termination reason code. For further information, see Chapter 61, "IRLM Abend Reason Codes," on page 1339.

This reason code is issued by the following CSECT: DSNRRIUN

System Action: Standard DB2 diagnostic information is recorded in SYS1.LOGREC, and an SVC dump is requested for the original error before DB2 subsystem termination is initiated.

Operator Response:

1. Run the print log map (DSNJU004) utility to print content of both BSDSs.
2. Print SYS1.LOGREC.
3. Follow instructions for the accompanying recovery log manager error. Use the MVS DISPLAY DUMP command to get the failure reason code from dump titles.
4. Start DB2 again.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump for the original error.

Problem Determination: At the time of the abend, registers 2 and 3 contain the 6-byte relative byte address (RBA) of the last log record that was read before end-of-log was encountered.

00D99001

Explanation: An attempt to read the CHKPTRBA failed to return a valid checkpoint record. This abend is issued after the DSNR015I error message is issued.

System Action: Restart is abended.

Operator Response: Inform the system programmer.

System Programmer Response: Let the change log inventory (DSNJU003) utility select the checkpoint RBA when building the conditional restart record. If a specific checkpoint is desired, use DSN1LOGP to print out the checkpoint log records within a specified range. If manual selection of the checkpoint RBA is desired, use the print log map (DSNJU004) utility to print the checkpoint queue. Print the checkpoint queue by using the CHKPTRBA keyword.

Problem Determination:

- Print the checkpoint records within the desired range using DSN1LOGP.
- Print the checkpoint queue using DSNJU004.
- Verify the checkpoint queue against the DSN1LOGP report.
- If automatic checkpoint selection was used and the checkpoint was invalid, find the valid checkpoint RBA in the DSN1LOGP report. Use this checkpoint RBA in the CRCR using the CHKPTRBA keyword.
- If an explicit checkpoint was specified and the checkpoint was invalid, let DSNJU003 automatically choose the checkpoint by not specifying a CHKPTRBA keyword.

00D99002

Explanation: Validation of the STARTRBA failed because either the end of the log was reached, or a bad log record was encountered while attempting to find the first complete log record.

System Action: Restart abends.

Operator Response: Inform the system programmer.

System Programmer Response: Check the console log for DSNJ (Log Manager) messages; these may indicate failures in the Log Manager processing, or may reveal additional useful information for diagnostic purposes. Use DSN1LOGP to find a safe STARTRBA to use for restart. If a STARTRBA is specified, the Recovery Manager will use it as a starting point. From the starting point, the Recovery Manager will attempt to find the beginning of a valid log record.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 16.

00D99003

Explanation: CSRONLY was specified in the conditional restart record. Only the DB2 status phase of restart will complete.

System Action: Restart abends.

System Programmer Response: Use the change log inventory (DSNJU003) utility to cancel the current conditional restart record or create a new conditional restart record.

00D99004

Explanation: A log read failed because an internal error was detected by the data manager while examining the log record during DB2 restart.

This abend reason code is issued by the following CSECT: DSNRRHSL

System Action: The execution unit writes a record to SYS1.LOGREC and requests a SVC dump. Restart abends.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC and SVC dump. Notify the system programmer.

System Programmer Response: Obtain the SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: RM standard diagnostic information is provided in "Recovery Manager Reason Codes (X'D9)". In addition, the following diagnostic information is provided in registers:

Register 0

The data manager ERQUAL that identifies the place within the data manager filter routine where the error was detected

Register 2,3

The RBA of the log record that was being read at the time of the error

Register 8

The address of *ssnmDBM1*'s selection block

Register 9

The address of DSCF' selection block

00D99900

Explanation: The request to commit the unit of recovery failed because the agent is a participant in a global transaction and the global transaction is going to be backed out.

System Action: The unit of recovery is not committed.

User Response: The application must roll back to the previous COMMIT.

00D9AAAA

Explanation: This reason code identifies additional data stored in the SDWA variable recording area following a failure during abort-UR.

This reason code appears only in the SDWA variable recording area (VRA) and serves only to identify data (in addition to the standard DB2 diagnostic information that is stored in the SDWA). This reason code is the first data item of the standard information. As such, it always appears in the VRA of an SDWA for a primary error completion/reason code. If no data is added, the reason code in the SDWA VRA is the same as that associated with the completion code.

This reason code is issued by the following CSECT: DSNRCAFR

System Action: Five bytes of data preceded by code VRAHEX are stored following the EBCDIC string 'RMC-COMMIT/ABORT'.

Length Data

1 byte Retry flags

1 byte Retry id

1 byte Notification RMID

2 bytes

ACE progress state (ACEPROG)

System Programmer Response: Use this information in conjunction with other information for the primary failure. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D9BBBB

Explanation: This reason code identifies additional data stored in the SDWA variable recording area following a failure during begin-UR.

This reason code appears only in the SDWA variable recording area (VRA) and it serves only to identify data (in addition to the standard DB2 diagnostic information, stored in the SDWA). This reason code is the first data item of the standard information. As such, it always appears in the VRA of an SDWA for a primary error completion/reason code. If no data is added, the reason code in the SDWA VRA is the same as that associated with the completion code.

This reason code is issued by the following CSECT: DSNRUB01

System Action: The following data is stored preceded by code VRAHEX.

Length Data

4 Content of ACEURE

4 URE address

4 DSNWRCD return code

1 Retry flags

System Programmer Response: Use this information with the instructions for the specific failure. If you

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suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D9CCCC

Explanation: This reason code identifies additional data stored in the SDWA variable recording area following a failure during commit-UR.

This reason code appears only in the SDWA variable recording area (VRA) and serves only to identify data (in addition to the standard DB2 diagnostic information, stored in the SDWA). This reason code is the first data item of the standard information. As such, it always appears in the VRA of an SDWA for a primary error completion/reason code.

This reason code is issued by the following CSECT:
DSNRCAFR

System Action: Five bytes of data preceded by code VRAHEX are stored following the EBCDIC string 'RMC-COMMIT/ABORT'.

Length Data

1 byte	Retry id
1 byte	Notification RMID
1 byte	ACE progress state (ACEPROG)
1 bit	In flight
1 bit	In-Commit1
1 bit	Indoubt
1 bit	In-Commit2
1 bit	End-Commit
1 bit	In-Abort
1 bit	End-Abort
1 bit	(Reserved)

System Programmer Response: Use this information with the instructions for the specific failure. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00D9EEEE

Explanation: This reason code identifies additional data stored in the SDWA variable recording area following a failure during end-UR.

This reason code appears only in the SDWA variable recording area (VRA) and serves only to identify data (in addition to the standard DB2 diagnostic information, stored in the SDWA). This reason code is the first data item of the standard information. As such, it always appears in the VRA of an SDWA for a primary error completion/reason code.

This reason code is issued by the following CSECT:
DSNRUE01

System Action: The following data is stored preceded by code VRAHEX.

Length Data

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- 4 URE address
- 4 DSNWRCRD return code

System Programmer Response: Use this information in conjunction with the information about the error completion code. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Chapter 45. X'E2.....' codes

00E20001

Explanation: The get variable storage function detected that input parameters passed by the invoker were invalid.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general purpose registers contain the indicated diagnostic information:

Register 4 contains the address of the pool header block (PHB), which contains information for the current status of the pool.

Register 7 contains the value of the caller's saved register 14.

Register 3 contains the input request length.

Register 5 contains the input request owner ID.

Offset X'1EF' in the SDWA contains a VRACAN key of X'3D', followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20002

Explanation: The free variable storage function detected that input parameters (either the pool address or the pool type) passed by the invoker were invalid.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general purpose registers contain the indicated diagnostic information:

Register 4 contains the address of the pool header block (PHB), which contains information for the current status of the pool.

Register 7 contains the value of the caller's saved register 14.

Offset X'1EF' in the SDWA contains a VRACAN key of X'3D', followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20003

Explanation: In order to satisfy an unconditional request for storage, the get variable storage function needed to obtain storage (from GETMAIN) to expand a storage pool. However, GETMAIN indicated that sufficient storage in the private area was not available.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size. If the region size is already defined at the maximum, consider enabling the CONTSTOR system initialization parameter. For more information, see *DB2 Installation Guide*.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker. The trace information contains the requested amount of storage.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20004

Explanation: In order to satisfy an unconditional request for storage, the get variable storage function needed to obtain additional storage (from GETMAIN) to expand a storage pool. However, the pool attributes defined at the time the pool was created indicated that the pool was already at maximum size.

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This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20005

Explanation: The free variable storage function detected that the address of a block being freed was invalid. That is, it did not lie within an existing storage pool.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14. Register 11 contains the address of the invalid block to be freed.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20006

Explanation: The free variable storage function detected that the block being freed was not allocated. That is, it was already free.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14. Register 11 contains the address of the free block.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20007

Explanation: The allocate variable storage pool function detected that the input parameters passed by the invoker were invalid.

This abend reason code is issued by the following CSECT: DSNSVPL

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general purpose registers contain the indicated diagnostic information:

Register 2 contains the input parameter list address.

Register 3 contains the input maximum pool size.

Register 4 contains the input expansion segment size.

Register 5 contains the input initial segment size.

The trace information contains the address of the invalid parameter list.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20008

Explanation: The free variable storage pool function detected that the input parameter (PHB—pool header block) did not represent an existing pool.

This abend reason code is issued by the following CSECT: DSNSVPL

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The trace information contains the address of the invalid PHB (pool header block).

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20009

Explanation: The get fixed blocks function detected that input parameters passed by the invoker were invalid.

This abend reason code is issued by the following CSECT: DSNSFBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general purpose registers contain the indicated diagnostic information:

Register 4 contains the address of the pool header block (PHB).

Register 7 contains the value of the caller's saved register 14.

Register 5 contains the number of blocks requested.

The invalid input parameters are also contained in the trace information.

Offset X'1EF' in the SDWA contains a VRACAN key of X'3D', followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2000A

Explanation: The get tracked storage function requested storage from the DSNSGETM function for a tracking element in order to track the storage to be returned to the invoker. However, storage for the tracking element was unavailable. The invoker's request was unconditional.

This abend reason code is issued by the following CSECT: DSNSGMN

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2000B

Explanation: In order to satisfy an unconditional request, the get fixed block(s) function needed to obtain additional storage to expand a storage pool. However, GETMAIN indicated that insufficient storage existed in the private area.

This abend reason code is issued by the following CSECT: DSNSFBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size. If the region size is already defined at the maximum, consider enabling the CONTSTOR system initialization parameter. For more information, see *DB2 Installation Guide*.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14. The trace information contains the number of blocks requested.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2000C

Explanation: In order to satisfy an unconditional request, the get fixed block(s) function needed to obtain additional storage to expand a storage pool. However, the pool attributes defined at the time the pool was created indicated that the pool was already at maximum size.

This abend reason code is issued by the following CSECT: DSNSFBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14. The trace information contains the number of blocks requested.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2000D

Explanation: DB2 detected that either the address of a block being freed (the only block or a block on a chain of blocks) was invalid or the block did not lie within an existing storage pool.

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: The most likely cause of the problem is a storage overlay or an invalid storage request from a DB2 component. A product other than DB2 could cause the storage overlay problem.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 7 contains the value of the caller's saved register 14. Register 11 contains the address of the invalid block to be freed.

At offset X'1EF' in the SDWA, there is a VRACAN key of X'3D', followed by the module name of the storage manager invoker.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

This abend reason code is issued by the following CSECT: DSNSFBK

00E2000E

Explanation: DB2 detected that a segment of storage within the pool on which the request was directed was invalid or contained an invalid 'free chain' of free blocks in the segment.

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: The most likely cause of the problem is a storage overlay or an invalid storage request from a DB2 component. A product other than DB2 could cause the storage overlay problem.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14. Register 11 contains the address of the block to be freed if freeing a fixed block.

At offset X'1EF' in the SDWA, there is a VRACAN key of X'3D', followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

This abend reason code is issued by the following CSECT: DSNSFBK

00E2000F

Explanation: The free fixed block(s) function detected that the only block, or the one block on the chain of blocks, being freed did not represent an allocated block; that is, it was already free.

This abend reason code is issued by the following CSECT: DSNSFBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of

the caller's saved register 14. Register 11 contains the address of the free block.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20010

Explanation: The allocate fixed-block pool function detected an invalid input parameter passed by its invoker.

This abend reason code is issued by the following CSECT: DSNSFPL

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general purpose registers contain the indicated diagnostic information:

- Register 2 contains the input parameter list address.
- Register 3 contains the input request block size.
- Register 4 contains the input maximum pool size.
- Register 5 contains the input expansion segment size.

The trace information also contains the address of the invalid parameter list.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20011

Explanation: The free fixed-block pool function detected that the input parameter either was not a valid pool header block (PHB), or it did not represent an existing pool.

This abend reason code is issued by the following CSECT: DSNSFPL

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is

recorded in SYS1.LOGREC, and a DB2 dump is requested. The trace information has the address of the pool header block (PHB).

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20012

Explanation: The get tracked storage from the GETMAIN function detected an invalid input parameter passed by its invoker.

This abend reason code is issued by the following CSECT: DSNSGMN

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general purpose registers contain the indicated diagnostic information:

- Register 2 contains the input parameter list address.
- Register 3 contains the input request length.
- Register 4 contains the input storage class.

The trace information has the address of the invalid parameter list.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20013

Explanation: The get tracked storage from GETMAIN function was unable to obtain sufficient storage in private area to satisfy an unconditional request.

This abend reason code is issued by the following CSECT: DSNSGMN

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed. The trace information has the address of the parameter list.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20014

Explanation: The free tracked storage function detected that the area requested to be freed was not valid. Either the address did not represent storage currently allocated (via the DSNSGETM function), or the storage class passed as input to DSNSFREM did not match the class assigned to the storage by DSNSGETM.

This abend reason code is issued by the following CSECT: DSNSGMN

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The trace information has the address of the storage and the storage class.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20015

Explanation: The allocate stack function, which is always unconditional, requested storage from GETMAIN to obtain a stack segment. GETMAIN indicated that 8K bytes of private area storage in subpool 229 was not available.

This abend reason code is issued by the following CSECT: DSNSVSTK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase maximum private storage.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. There is probably a shortage of private area storage in the address space in which the failure occurred. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20016

Explanation: The get stack storage function, in order to satisfy an unconditional request for stack storage, requested storage from GETMAIN. However, GETMAIN indicated that sufficient storage in subpool 229 was not available.

This abend reason code is issued by the following CSECT: DSNSVSTK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20017

Explanation: The free stack storage function detected that the address of the area to be freed did not lie within allocated storage in the stack indicated by the requester.

This abend reason code is issued by the following CSECT: DSNSTACK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20018

Explanation: The get stack storage function detected that the amount of storage requested by the invoker was less than or equal to zero.

This abend reason code is issued by the following CSECTs:

DSNB1CHK	DSNB1CPP	DSNB1CPS	DSNB1CST
DSNB1OPP	DSNB1OPS	DSNB1OST	DSNB1RRR
DSNB1RTR	DSNB1SWS	DSNB1SWU	DSNB5COM
DSNFGENM	DSNIBHUN	DSNICINV	DSNIDLEO
DSNILGBW	DSNILREP	DSNIREPR	DSNIRWSL
DSNISEL	DSNISELK	DSNISRTI	DSNISVPT
DSNITDLE	DSNJW101	DSNKCHNP	DSNKDLET
DSNKDLEV	DSNKDLPG	DSNKISRT	DSNKLFIV
DSNKMSP1	DSNKMSV1	DSNKNLDL	DSNKR DST
DSNKREPL	DSNVCONN	DSNVDISC	DSNVEUS2
DSNVIALC	DSNVRMEL	DSNVSTAI	DSNWTRAC
DSNXA02	DSNXICIX	DSNXICX2	DSNXOGC
DSNXOGP	DSNXOLV	DSNXOOP	DSNXOVD
DSNXO1S	DSN3CT30	DSN3ID50	DSN3SI30
DSN9SCNF			

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20019

Explanation: The purge pool function detected that input parameters passed by the invoker were invalid.

This abend reason code is issued by the following CSECT: DSN SPOWN

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The following general registers contain the indicated diagnostic information:

Register 4 contains the input pool address.

Register 5 contains the input pool owner ID.

The trace information also contains the input parameters.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2001A

Explanation: ESTAE recovery can not be established, because either an unexpected error occurred, or SCB is not available.

This abend reason code is issued by the following CSECT: DSN SCON

System Action: The agent is abended.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 15 contains the return code from DSN3ESTO; this is the MVS ESTAE return code.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2001B

Explanation: The SETLOCK OBTAIN function issued a nonzero return code.

This abend reason code is issued by the following CSECTS:

DSNSCON2	DSNSCTL	DSNSFBK	DSNSFPL
DSNSGMN	DSNSHDWN	DSNSINTM	DSNSTERM
DSNSVBK	DSNSVPL	DSNSVSTK	

System Action: The invoker of storage manager functions is abnormally terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2001C

Explanation: The purge stack function detected that one of the SKBs (stack block) is not valid and the SKB chain is possibly damaged.

This abend reason code is issued by the following CSECT: DSN SPURS

System Action: The SKB chain is repaired and processing continues.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The trace information contains the address of the EB for which the stack segments are to be purged.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2001D

Explanation: Either GPVT (global pool anchor) or LPVT (local pool anchor) is damaged, and no storage managed by storage manager can be accessed.

This abend reason code is issued by the following CSECT: DSNSRSUP

System Action: The DB2 subsystem is abended. In some cases, the FRR is established by the caller of the storage manager (SM) subcomponent. When this is the case, the SVC dump is requested by the caller. When this is not the case, the SM requests the SVC dump.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump is requested, but in some cases the dump request is made by the caller of storage manager, rather than by storage manager itself. Register 6 contains the address of the EB.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2001E

Explanation: The get stack storage function detected that two asynchronous (unrelated) agents use the same stack storage.

This abend reason code is issued by the following CSECT: DSNSVSTK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the address of the stack segment (SKB). Register 6 contains the address of the EB. In the event of an ABEND, DSNTFRCV saves information in the VRA of the SDWA.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2001F

Explanation: In order to satisfy an unconditional request for storage, the get variable storage function needed to obtain storage (from GETMAIN) to expand a storage pool. However, GETMAIN indicated that sufficient storage in common service area (CSA) to expand the pool was not available.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase common service area (CSA) size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The common service area (CSA) portion of the dump should be printed. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the caller's saved register 14.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20020

Explanation: The get variable pool function needed to obtain storage (from GETMAIN) to create pool header block (PHB) to represent the pool, but GETMAIN indicated that sufficient storage in private area was not available.

This abend reason code is issued by the following CSECT: DSNSVPL

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20021

Explanation: The get variable pool function needed to obtain storage (from GETMAIN) to create pool header block (PHB) to represent the pool, but GETMAIN indicated that sufficient storage in common service area (CSA) was not available.

This abend reason code is issued by the following CSECT: DSNSVPL

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase common service area (CSA) size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The common service area (CSA) portion of the dump should be printed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20022

Explanation: In order to satisfy an unconditional request, the get fixed block(s) function needed to obtain additional storage to expand a storage pool. However, GETMAIN indicated that sufficient storage in common service area (CSA) was not available.

This abend reason code is issued by the following CSECT: DSNSFBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase common service area (CSA) size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 4 contains the address of the pool header block (PHB). Register 7 contains the value of the saved caller's register 14. The common service area (CSA) portion of the dump should be printed.

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20023

Explanation: The get fixed pool function needed to obtain storage (from GETMAIN) to create pool header block (PHB) to represent the pool, but GETMAIN indicated that sufficient storage in private area was not available.

This abend reason code is issued by the following CSECT: DSNSFPL

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20024

Explanation: To create a pool header block (PHB) that represents the pool, the get fixed pool function requested storage from GETMAIN. However, GETMAIN indicated that insufficient storage existed in the common service area (CSA) to satisfy the request.

This abend reason code is issued by the following CSECT: DSNSFPL

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase common service area (CSA) size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The common service area (CSA) portion of the dump should be printed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20025

Explanation: The get tracked storage from GETMAIN function was unable to obtain sufficient storage in common service area (CSA) to satisfy an unconditional request.

This abend reason code is issued by the following CSECT: DSNSGMN

System Action: The agent is abended.

System Programmer Response: Increase common service area (CSA) size.

00E20026 • 00E20029

Operator Response: Notify the system programmer.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. The trace information has the address of the parameter list. The common service area (CSA) portion of the dump should be printed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20026

Explanation: Either the allocate stack storage function or the get stack storage function was unable to obtain 4KB of private area storage in subpool 229 for an all-segment table in which a record (representing a stack storage segment) was to be inserted.

This abend reason code is issued by the following CSECT: DSNSVSTK

System Action: The invoker of the function is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Increase region size.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. There is probably a shortage of private area storage in the address space in which the failure occurred. Register 2 contains the ASID, in hexadecimal, of the private area to be printed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E20027

Explanation: The free variable storage function detected that unallocated storage in the block being freed has been modified.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR Content

1104 Messages and Codes

4 address of the pool header block (PHB)
7 value of the caller's saved register 14
11 address of the block to be freed

The block to be freed includes two parts: a four word header of control information and the block itself. The second word in the header (offset of 4) is the length of the block.

The third word in the header (offset of 8) is the address of the storage requester. The block is made up of two parts: allocated storage and two words of unallocated storage (padding area of '03').

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

00E20028

Explanation: Either the get stack, deallocate stack or release stack storage function detected that an SKB was invalid or was not represented accurately in the all-segment table.

This abend reason code is issued by the following CSECTS: DSNSVSTK, DSNSTACK

System Action: The invoker is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 7 contains the value of the stack segment (SKB).

00E20029

Explanation: The free variable storage function detected that although the address of the block being freed was within the specified storage pool it was not the address of the beginning of a variable block.

This abend reason code is issued by the following CSECT: DSNSVBK

System Action: The agent is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

The following general purpose registers (GPRs) contain

the indicated diagnostic information:

GPR	Content
4	value of the pool header block (PHB)
7	address of the caller's saved register 14
11	address of the invalid block to be freed

At offset 1EF in the SDWA, there is a VRACAN key of '3D' (in HEX), followed by the module name of the Storage Manager invoker.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2002A

Explanation: The SMC Recovery Stack Management function detected that the number of allowed entries in the SMC Recovery Stack has been exceeded, or the structure has been incorrectly modified.

This abend reason code is issued by the following CSECTs:

DSNSCTL	DSNSFBK	DSNSRSUP	DSNSTACK
DSNSVBK	DSNSVSTK		

System Action: The invoker is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 6 contains the address of the current execution block (EB). This EB has a pointer to the current head stack block (SKB) that is encountering the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2002B

Explanation: This abend code is used to force percolation in the case when an abend is encountered while in Storage Manager code and the Storage Manager has been called recursively.

This abend reason code is issued by the following CSECTs:

DSNSCTL	DSNSFBK	DSNSRSUP	DSNSTACK
DSNSVBK	DSNSVSTK		

Problem Determination: Refer to the originating abend code.

00E2002C

Explanation: DB2 detected that the free chain in a data space was damaged.

This abend reason code is issued by the following CSECT: DSNSDSGM

System Action: The requested function is not performed. A DB2 dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2002D

Explanation: DB2 is unable to create a data space.

This abend reason code is issued by the following CSECT: DSNSDSGM

System Action: The requested function is not performed. A DB2 dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. If the error was caused by DSPSERV, the reason code from DSPSERV is saved in register 15. If the error was caused by ALESERV, the return code from ALESERV is saved in register 15. Refer to the appropriate MVS publication for the meaning of the return and reason codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2002E

Explanation: DB2 detected an internal error during the freeing of data space storage.

This abend reason code is issued by the following CSECT: DSNSDSFM

System Action: The requested function is not performed. A DB2 dump is requested.

Operator Response: Notify the system programmer.

00E2002F

System Programmer Response: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E2002F

Explanation: DB2 detected an internal error during the freeing of data space storage.

Thisabend reason code is issued by the following CSECT: DSNDSDFM

System Action: The requested function is not performed. A DB2 dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

Chapter 46. X'E3.....' codes

00E30001

Explanation: A service controller internal inconsistency has been encountered. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTS:

DSNTAAL	DSNTBAB	DSNTBAP1	DSNTBCM1
DSNTBFR	DSNTBRB	DSNTLBAC	DSNTLCAU
DSNTLDU	DSNTLIDE	DSNTSFST	DSNTSGST
DSNTSINI	DSNTCGET	DSNTCSTR	DSNTDINQ
DSNTLSUS	DSNTTIM		

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The execution unit is abnormally terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller has detected an internal inconsistency. The problem can be determined by analyzing the CSECT involved in the abend.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E30003

Explanation: An error was returned from a data manager restore operation. This abend is issued to ensure that changes made to the catalog by a failing BIND function are backed out.

This abend reason code is issued by the following CSECTS:

DSNTBAB	DSNTBCM1	DSNTBRB
---------	----------	---------

System Action: The BIND function is abended. All effects of the BIND operation are rolled back. A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller code, using the data manager restore function, has detected an error while trying to undo the results of a BIND operation. The data manager return and reason code encountered can be found in the CTDMRETC and CTSIRCOD fields of the cursor table pointed to by register 7 in the SDWA.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E30004

Explanation: This abend is issued by the service controller initialization module whenever an error return code is received from a database services subcomponent participating in the DB2 startup process. This abend ensures that DB2 is terminated.

This abend reason code is issued by the following CSECT: DSNTSTRT

System Action: The database services shutdown process is initiated after an SVC dump is requested, and a record is written to the SYS1.LOGREC data set. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A list of all database services subcomponents whose initialization process has been completed may be obtained from the SVC dump requested by this abend. Register 2 in the SDWA points to a structure that contains the following diagnostic information:

- 0 (0)** Module qualifier that identifies the area within DSNTSTRT at which the error was detected. The qualifier should be:
 - A (10)** Error found upon return from the SCC startup initialization process
 - B (11)** Error found upon return from the SCC IRLM identify process
 - C (12)** Error found upon return from the buffer manager initialization process
 - D (13)** Error found upon return from the data manager initialization process
 - E (14)** Error found upon return from the data space manager initialization process
 - F (15)** Error found upon return from the RDS initialization process or LOB Manager initialization process.
- 2 (2)** Error return code from the invoked subcomponent

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- 4 (4)** Error reason code from the invoked subcomponent
- 8 (8)** Pointer to a structure containing a character string SSCM followed by a 32-bit map representing the following information:
- Bit 0** 1 if DB2 has successfully 'signed on' to IRLM
 - 10 (16)** Error found upon return from the SCC startup initialization process
 - Bit 1** 1 if the buffer manager subcomponent initialization process is completed
 - Bit 2** 1 if the data manager subcomponent initialization process is completed
 - Bit 3** 1 if the data space manager subcomponent initialization process is completed
 - Bit 4** Not used
 - Bit 5** 1 if the RDS subcomponent initialization process is completed
 - Bit 6** Not applicable
 - Bit 7** 1 if the SCC initialization process is completed
 - Bit 8** 1 if the LOB Manager initialization is completed
 - Bit 9 – 31** Not used
- C (12)** Pointer to invoked subcomponent's RMFT.

From this information the appropriate subcomponent's startup process may be identified.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E30005

Explanation: A service task could not be created during the database services initialization process. This is probably a DB2 error.

This abend reason code is issued by the following CSECTs: DSNTSTR1, DSNTCST1

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is possibly a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 2 in the SDWA points to a structure that contains the following diagnostic information:

- 0 (0)** Should equal X'3'
- 2 (2)** Return code from the service task creation function of the agent services manager (ASM) subcomponent
- 4 (4)** Abend reason code from the service task

- 8 (8)** creation function of the agent services manager (ASM) subcomponent
- 8 (8)** Not used
- C (12)** Not used

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E30006

Explanation: A service task could not be created during the database services delete process. This is probably a DB2 error.

This abend reason code is issued by the following CSECT: DSNTCST1

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is possibly a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 2 in the SDWA points to a structure that contains the following diagnostic information:

- 0 (0)** Should equal X'3'
- 2 (2)** Return code from the service task creation function of the agent services manager (ASM) subcomponent
- 4 (4)** Abend reason code from the service task creation function of the agent services manager (ASM) subcomponent

- 8 (8)** Not used
- C (12)** Not used

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E30008

Explanation: DSNTSTR2 loaded an incorrect version of the system parameter CSECT DSN6SPRM while DB2 was executing. Message DSNT103I is generated before the abend occurs.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: DB2 is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Restart DB2 with a -START DB2 PARM= command, where the parameter block that follows the 'PARM=' parameter specifies an MVS/XA version of the DB2 subsystem parameters.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 9.

00E3000A

Explanation: A bad recovery element was detected by the database services standard ESTAE and FRR recovery routines. This is probably a DB2 subsystem error.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This error is detected when a module invokes the macro DSNTSFRR to disconnect a functional recovery element (FRE) from a functional recovery chain to which it is not connected. The name of the module passing the invalid FRE is the module issuing the abend.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E3000B

Explanation: The database services section (DSN6SPRM) in the DB2 initialization parameter module (DSNZPARM) does not exist.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an installation error. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 2 in the SDWA points to a structure that contains the following diagnostic information:

- 0 (0)** Should equal X'1'
- 2 (2)** Return code from the get descriptor function of the system parameter manager (SPM) subcomponent of DB2
- 4 (4)** Not applicable
- 8 (8)** Not applicable
- C (12)** Not applicable

First, ensure that DSNZPARM was installed correctly. Then, using the return code from SPM, determine why the descriptor is not available.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 9.

00E3000C

Explanation: A database services TCB service task that cannot be reinstated has been abnormally terminated. Entries in SYS1.LOGREC that precede this entry indicate the source of the error.

This abend reason code is issued by the following CSECT: DSNTSREI

System Action: The executing unit is abended. A record is written to SYS1.LOGREC.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC, and determine the cause of the problem from the information that precedes this entry.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E3000D

Explanation: A failure occurred and was detected while an ESTAE functional recovery was being established.

This abend reason code is issued by the following CSECTS:

DSNBICST DSNBIOST DSNIDDBD DSNIDPRO
DSNILDBP DSNTBAP DSNTDMST DSNTSTOP
DSNTSTRT

System Action: The executing unit is abended. A record is written to SYS1.LOGREC.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC, and determine the cause of the problem from the information that precedes this entry.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E3000E

Explanation: The execution unit supporting the database services checkpoint process has abended. The CSECT involved in the abend writes a record to SYS1.LOGREC and requests an SVC dump.

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This abend reason code is issued by the following CSECT: DSNTRCKP

System Action: DB2 is abended. A record is written to SYS1.LOGREC.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC, and determine the cause of the problem from the information that precedes this entry.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E3000F

Explanation: The database services functional recovery load module, DSNTF, has an unrecognizable entry point.

This abend reason code is issued by the following CSECT: DSNTSTRT

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an installation error. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 2 in the SDWA points to a structure that contains the following diagnostic information:

- 0 (0) Should equal X'4'
- 2 (2) Not applicable
- 4 (4) Not applicable
- 8 (8) Not applicable
- C (12) Not applicable

The abend is generated whenever the DB2 load module DSNTFEPL is not link-edited with a load module entry point name of DSNTF. To correct this, link-edit DSNTFEPL again with the correct entry point name.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5.

00E30010

Explanation: The database services initialization process could not read the DB2 bootstrap data set (BSDS).

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an installation error. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This error can usually be traced to a VSAM error occurring while reading the BSDS. Before examining the dump, examine the operator console log and SYSLOG to determine if VSAM has encountered any errors on the BSDS.

Register 2 in the SDWA points to a structure that contains the following diagnostic information:

- 0 (0) Should equal X'2'
- 2 (2) Return code from a BSDS read request function of the recovery log manager (RLM) subcomponent
- 4 (4) Abend reason code from a BSDS read request function of the recovery log manager (RLM) subcomponent
- 8 (8) Not applicable
- C (12) Not applicable

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5, 16.

00E30013

Explanation: The value specified in the DSN6SYSP CSECT to define reserve storage is either negative or zero.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: DB2 is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble DSN6SPRM and relink-edit the DSNZPARM load module. This is done by resubmitting the installation job stream, DSNTIJUZ, that built the load module named in the -START DB2 command 'PARM=' parameter.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5, 9.

00E30014

Explanation: The value specified in the DSN6SYSP CSECT to define reserve storage for a 'must complete' process is either negative or 0.

This abend reason code is issued by the following CSECT: DSNTSTR2

System Action: DB2 is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Reassemble DSN6SPRM and relink-edit the DSNZPARM load module. This is done by resubmitting the installation job stream, DSNTIJUZ, that built the load module named in the -START DB2 command 'PARM='

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5, 9.

00E30017

Explanation: While loading the DB2 database services function recovery and emergency shutdown modules, the Service Controller function abends with this reason code. This is because it detected a load module which was loaded with an invalid addressing capability. The abend is preceded by message DSNT107E.

This abend reason code is issued by the following CSECT: DSNTSTRT

System Action: DB2 database services startup is terminated.

System Programmer Response: Refer to message DSNT107E.

Problem Determination: Refer to message DSNT107E.

00E3001B

Explanation: A plan could not be executed because the system from which you are attempting to run is disabled or unknown. The system type might be unknown if the attach library that you are using is from a previous release of DB2 that does not support the ENABLE and DISABLE options of the bind operation.

This abend reason code is issued by the following CSECT: DSNTAAL

System Action: The plan is not allocated.

System Programmer Response: Refer to the SYSIBM.SYSPLSYSTEM table to determine the systems from which the plan can be executed, or correct the attach library.

00E30021

Explanation: A processing error has occurred during authorization checking.

This abend reason code is issued by the following CSECT: DSNTAXAC

System Action: The request to allocate a plan to the authorization ID is denied.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

and *Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E30034

Explanation: The authorization ID associated with this connection is not authorized to use the specified plan name or the specified plan name does not exist.

This abend reason code is issued by the following CSECT: DSNTAUTH

System Action: The request to allocate a plan to the authorization ID is denied.

User Response: Verify that the correct plan name was specified. If the plan exists, then authority to execute the plan must be granted.

00E30035

Explanation: A processing error has occurred during authorization checking.

This abend reason code is issued by the following CSECT: DSNTAUTH

System Action: The request to allocate a plan to the authorization ID is denied.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E30036

Explanation: A processing error has occurred during authorization checking.

This abend reason code is issued by the following CSECT: DSNTLBAC

System Action: The IRLM query request is denied.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E30037

Explanation: An internal logic error occurred while invoking a distributed transaction manager function.

This abend reason code is issued by the following CSECTs:

DSNTDINQ DSNTLSUS DSNTCGET

System Action: DB2 writes a SYS1.LOGREC record and requests a SVC dump.

User Response: Notify the system programmer.

Operator Response: Collect the SYS1.LOGREC listing and the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E30040

Explanation: An internal logic error occurred while the catalog access function was being invoked.

This abend reason code is issued by the following CSECT: DSNTCSRC

System Action: The START RLIMIT command fails. The governing status prior to issuing this command continues unchanged.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, the registers contain the following information:

Register**Contents**

0	Address of the catalog access package parameter list
2	Catalog access return code
3	Catalog access reason code
4	Data manager return code
5	Data manager reason code
7	CT address

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E30041

Explanation: An internal error occurred when trying to obtain a limit from the resource limit specification table.

This abend reason code is issued by the following CSECT: DSNTCGET

System Action: A record is written to SYST1.LOGREC, and an SVC dump is requested. The requested execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E30065

Explanation: The service controller's BIND processor detected an error in the user's database request module (DBRM) while building the SYSDBRM record.

This abend reason code is issued by the following CSECT: DSNTBCM1

System Action: The BIND command fails.

User Response: An invalid field in the DBRM was found while processing the BIND command. The DBRM might be bad. Rebuild the DBRM and reissue the BIND command.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00E30066

Explanation: The service controller's BIND processor has detected an invalid release dependency mark in the cursor table.

This abend reason code is issued by the following CSECT: DSNTBBP

System Action: The BIND command fails.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following

diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

The service controller module DSNTBBP detected an unknown value in the CTRELDEP field of the BIND CT. The BIND CT is pointed to by GPR7 at the time of the abend and is mapped by DSNDCT. The one byte CTRELDEP field should have been set by the RDS BIND processor (DSNXEPR) or one of the functions it invokes.

00E30067

Explanation: The BIND process program abended while attempting to use a BIND parameter. This usually indicates that the parameter list provided to the service controller BIND function is invalid (such as invalid addresses or incorrect key).

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The BIND subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 2 contains an indication of the type of parameter as follows:

00000101

Input parameter list.

00000102

Communication information block (CIB).

00000103

Invalid BIND subcommand name. Registers 3 and 4 contain the invalid subcommand name.

00000104

Subcommand information block (SIB).

00000201

DBRM member name list.

00000202

Plan-ID list.

00000203

Message block in user storage. Other register contents are as follows:

R3 R4

< 4 Simple reference
R8 = zero

>0 >4 MVCL
R8 = From address
R4 = move length

To and from lengths are equal.

0 >4 GETMAIN for user storage failed
R4 = storage length required
R8 = GETM

To fix this problem, increase your region size.

<0 >4 FREEMAIN of user storage failed
R4 = length of storage of free
R8 = address of storage to free

00000204

Message block in user storage. R8 = Message block address.

Except as indicated above, the information in the other registers is as follows:

R3 Parameter address

R4 Parameter length

R5 Parameter storage key

R8 Input parameter list address

00000205

Package-list name list.

00000206

ENABLE/DISABLE system list.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 20.

This abend reason code is issued by the following CSECTS:

DSNTBAP	DSNTBAP1	DSNTBAP2
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00E30068

Explanation: A function invoked by a BIND subcommand has returned an unexpected error.

This abend reason code is issued by the following CSECTS:

DSNTAAL	DSNTBAB	DSNTBAP1	DSNTBBP
DSNTBCM1	DSNTBFR	DSNTBRB	DSNTBCM2
DSNTBRB2	DSNTBFR2	DSNTBCM3	DSNTBAP

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The BIND subcommand is terminated.

User Response: Notify the system programmer.

System Programmer Response: This is an internal DB2 error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller code has detected an internal inconsistency. The problem can be determined by analyzing the CSECT involved in the abend.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E30069

Explanation: An attempt to allocate a cursor table (CT) failed.

This abend reason code is issued by the following CSECTS:

DSNTXSTB DSNTDMST DSNTDSTP

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal DB2 error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller code has detected an internal inconsistency. The problem can be determined by analyzing the CSECT involved in the abend.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E30070

Explanation: An attempt was made to use the Internal Resource Lock Manager (IRLM) facilities, but the IRLM was not available. Either the IRLM had not been started by the operator, or the IRLM has encountered a problem causing it to terminate abnormally.

This abend reason code is issued by the following CSECTS:

DSNTAAL DSNTBAB DSNTBCM1 DSNTBFR
DSNTBRB DSNTSFST DSNTSGST DSNTSINI

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The requesting execution unit is abended.

User Response: Notify the system programmer.

Operator Response: The IRLM should be started before the DB2 subsystem is started. If this does not resolve the problem (that is, if the IRLM actually was started before DB2 was started) notify the system programmer.

System Programmer Response: This is probably not a DB2 problem. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If IRLM abended, and if you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. Otherwise, ensure that the IRLM is started before the -START DB2 command is issued.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 9, 18.

00E30071

Explanation: Either DB2 terminated without successfully signing off from IRLM, or another subsystem with the same SSNAME is still connected. This abend reason code accompanies message DSNT380I.

This abend reason code is issued by the following CSECT: DSNTLIDE

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Determine if another DB2 subsystem is active. If another subsystem is not active, and IMS is not sharing the same IRLM, cancel IRLM prior to starting DB2. Regardless, notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

If the error was caused by a previously unsuccessful QUIT from the IRLM, manually stop IRLM. If IMS is using the same IRLM, refer to the IMS documentation to determine the effect of IRLM terminating while IMS is connected.

If you are running multiple versions of DB2, ensure that the SSNAME specified by the DSN6SPRM macro during the installation of the member DSNZPARM is not the same as the SSNAME in another version of DB2.

Problem Determination: A previously unsuccessful sign-off from the IRLM is documented by an abend of X'00E30075' during the previous termination of DB2.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5, 9, 18.

00E30072

Explanation: An error was encountered during an IRLM lock query request.

This abend reason code is issued by the following CSECTs: DSNTLAGL, DSNTLQRY

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The execution unit is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, the registers contains the following information:

R2 Address of the lock request RLPL
R4 Address of the IRLM query request RLPL
R5 Address of the IRLM query RLQD
R7 CT address

Refer to Part 5, "IRLM messages and codes," on page 1307 for information identifying IRLM return and reason codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 18.

00E30073

Explanation: An unrecoverable system error occurred while processing a LOCK or UNLOCK request.

This abend reason code is issued by the following CSECTs:

DSNTAAL DSNTBAB DSNTBCM1 DSNTBFR
 DSNTBRB DSNTSFST DSNTSGST DSNTSINI

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The requested execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller (SC) subcomponent has detected an internal inconsistency. The problem can be determined by analyzing the

CSECT involved in the abend.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 18.

00E30074

Explanation: A global out-of-storage condition was encountered by the Internal Resource Lock Manager (IRLM) during the processing of a LOCK or UNLOCK request.

This abend reason code is issued by the following CSECTs:

DSNTAAL DSNTBAB DSNTBCM1 DSNTBFR
 DSNTBRB DSNTSFST DSNTSGST DSNTSINI

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably not a DB2 problem. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The name of the module issuing the abend is recorded in the SYS1.LOGREC entry. It is also recorded in the SVC dump as the CSECT involved in the abend. A parameter in the IRLM procedure specifies the amount of the common service area (CSA) to be used by IRLM. Do one of the following:

- Increase the CSA limit.
- Use a local IRLM (that is, an IRLM option that causes IRLM to operate from another address space).
- Using IRLM lock tracing, determine what application is acquiring so many locks that it causes the IRLM CSA limit to be exceeded.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E30075

Explanation: During the normal sign-off from IRLM or during the abnormal shutdown of DB2, an AUTO-STOP of IRLM using SVC 34 abnormally terminated. Message DSNT383I is issued.

This abend reason code is issued by the following CSECT: DSNTLQUI

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably a

00E30076 • 00E30079

DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The name of the CSECT issuing the abend is found in both the SYS1.LOGREC and the SVC dump. Register 2 contains the SVC return code.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 5, 36.

00E30076

Explanation: An attempt to sign-off from IRLM failed.

This abend reason code is issued by the following CSECT: DSNTLQUI

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an internal DB2 error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller subcomponent has detected an internal inconsistency. The problem can be determined by analyzing the CSECT involved in the abend. This CSECT is found in both the SYS1.LOGREC and the SVC dump.

The request parameter list (RLPL) used during the sign-off process resides in the IRLM interface manager's communication block (DSNTLMC) from ACOM.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E30077

Explanation: A database command processor encountered an error when attempting to create a cursor block (CUB) on a DB2 catalog table.

This abend reason code is issued by the following CSECTs:

DSNTDINQ DSNTDMST DSNTDDIS

System Action: An error was detected during the generation of messages to satisfy a DATABASE command. A DSNT305I message appears on the console of the requester, with the RC parameter of 12 and a REASON parameter of X'00E30089'.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an internal DB2 error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Diagnostic information may be found in the Display Command Communication Area, whose address is found in register 8, and by the Display Command subcode in register 2.

00E30078

Explanation: IRLM called the service controller IRLM interface status exit with register 0 equal to 1 in order to notify DB2 that IRLM is terminating. This is not a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSNTLSTA

System Action: DB2 is abended when IRLM is terminated before DB2 is terminated. An entry is written to SYS1.LOGREC.

00E30079

Explanation: An error was encountered on return from the Internal Resource Lock Manager (IRLM) IDENTIFY function.

This abend reason code is issued by the following CSECT: DSNTLIDE

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This may be an internal DB2 error or an operator procedure problem. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: In the SVC dump, register 2 contains the return code and register 3 contains the reason code from the identify function to the IRLM. Examine the reason code in register 3, either from the dump or system console log. A reason code of X'4004' indicates that the identify function code (51, X'33') does not exist in the IRLM SSVT. This may be due to the operator issuing a stop IRLM command followed by a start DB2 command before the IRLM has completed termination processing. The sequence of commands can be determined from the system console log.

A reason code of X'4008' indicates that the IRLM is unavailable, that is, IRLM is not started and the autostart is not requested by parameters in DSNZPARM.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E3007A

Explanation: DB2 encountered an IRLM request error indicating that IRLM is not available to take requests.

This abend reason code is issued by the following CSECT: DSNTLCAU

System Action: DB2 terminates because it cannot complete an IRLM request.

Operator Response: Notify the system programmer.

System Programmer Response: Look for the IRLM error code or messages to find out why IRLM is not available to take the DB2 request. Most likely, IRLM is terminating at the same time.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination:

Refer to the IRLM problem determination process.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E30080

Explanation: An attempt was made to start the Internal Resource Lock Manager (IRLM) using the MGCR (SVC 34), and a nonzero return code was returned.

This abend reason code is issued by the following CSECT: DSNTLIDE

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Examine the SVC return code to determine whether this is a system problem or a DB2 internal problem. Obtain a copy of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 2 contains the SVC return code.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 36.

00E30081

Explanation: An attempt was made to start the Internal Resource Lock Manager (IRLM). IRLM did not come up in the time limit specified to DB2.

This abend reason code is issued by the following CSECT: DSNTLIDE

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. DB2 is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This problem can be circumvented. To do this, either specify a longer time limit in the IRLMSWT parameter of the DSN6SPRM assembler macro in the DSNTIJUZ job stream, or update the IRLM system wait time parameter in the DB2 installation update panel. You must also specify all other parameters contained in this version of the CSECT. Then resubmit the installation job DSNTIJUZ with the link-edit SYSIN file NAME parameter that matches the -START DB2 'PARM=' parameter. Refer to Part 2 of *DB2 Installation Guide* for additional information.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 9, 36.

00E30082

Explanation: IRLM discovered a bad request parameter list (RLPL). This may occur if the RLPL storage is overlaid while an agent is suspended.

This abend reason code is issued by the following CSECT: DSNTLSUS

System Action: The execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An IRLM request was made that IRLM could not honor immediately. IRLM called DSNTLSUS to suspend the request. While waiting, the request parameter list (RLPL) was changed and is no longer valid. Someone may be reusing the RLPL, or the storage may have been overlaid.

Register 2 contains a pointer to the RLPL.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E30083

Explanation: This agent has been selected as the victim of a deadlock or timeout.

This reason code is not used in abends.

This reason code is issued by the following CSECTs:

DSNTAAL DSNTBAB DSNTBCM1 DSNTBFR
DSNTBRB

00E30084

Explanation: Message DSNT305I appears on the console of the requester with RC=8 and REASON=E'00E30084'. This message tells the requester that an error was detected while building the database command display. Other entries in the SYS1.LOGREC help to identify the source of the error.

This abend reason code is issued by the following CSECTs: DSNTDMSG, DSNTDMUL

System Action: This is a DB2 subsystem error. No SVC dump is requested because a previous dump of the failing subcomponent is expected.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E30085

Explanation: An error was indicated by the RDS Authorization function. This is an internal DB2 error.

This abend reason code is issued by the following CSECT: DSNTDMI

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The command is abended after displaying a DSNT305I message with an RC parameter of 12 and a REASON parameter of X'00E30089'.

Operator Response: Notify the system programmer.

System Programmer Response: This is an internal DB2 error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The error return code address of the Display Command Communication Area is found in register 8.

00E30086

Explanation: An error was indicated by the data manager (DM) subcomponent. This is probably an internal DB2 error.

This abend reason code is issued by the following CSECTs: DSNTDMI, DSNTDCST

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The command is abended after displaying a DSNT305I message with an RC parameter of 12 and a REASON parameter of X'00E30089'.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The error return code of the data manager may be found in the cursor table (CT), the address of which is found in register 7.

00E30089

Explanation: This code is used in the REASON parameter of the DSNT305I database command message to inform the requester that the execution unit supporting the database command processor has terminated. Other entries in the SYS1.LOGREC identify the source of the error.

This abend reason code is issued by the following CSECT: DSNTDMSG

System Action: A DSNT305I message appears on the console of the requester, with an RC parameter of 12 and a REASON parameter of X'00E30089'. This is probably a DB2 subsystem error. No SVC dump is requested because a prior dump of the failing subcomponent is expected.

Operator Response: Notify the system programmer.

System Programmer Response: See the SYS1.LOGREC for prior failure.

00E30090

Explanation: A service controller internal inconsistency has been encountered during message generation.

This abend code is issued by the following CSECTs: DSNTDMSG, DSNTDMUL

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, register 2 contains the message number that was to be generated.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E30091

Explanation: A failure was detected during the retry process of DB2 recovery.

System Action: DB2 is abended after a record is written to SYS1.LOGREC and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably an internal DB2 error. Obtain a copy of SYS1.LOGREC and the an SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This abend is issued by DSNTFRCV of the service controller (SC) subcomponent.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E30092

Explanation: A retry recovery failure has been detected. This is a critical error.

This abend reason code is issued by the following CSECT: DSNTFRCV

System Action: DB2 is abended. This is probably a DB2 subsystem error.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a copy of the SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The service controller recovery module has detected an internal inconsistency. The problem can be determined by analyzing the CSECT involved in the abend. The name of this CSECT is found in both the SYS1.LOGREC and the SVC dump.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E30095

Explanation: DB2 is unable to acquire a modify lock because of an incompatible retained lock held by one or more other DB2 subsystems in the DB2 data sharing group. Retained locks are locks that persist across DB2 abnormal terminations.

System Action: SQLCODE -904 is returned to the user. This reason code and the resource name are also returned.

System Programmer Response: Use the DISPLAY DATABASE command to display the DB2 member names owning the retained locks. You must restart those subsystems to remove the 'resource unavailable' condition.

Problem Determination: This reason code is issued by the following CSECTS:

DSNTAAL	DSNTBAB	DSNTBAS2	DSNTBCM1
DSNTBCM3	DSNTBFR	DSNTBIAB	DSNTBRB
DSNXEAL			

00E30096

Explanation: DB2 is unable to acquire a modify lock. Lock negotiation failed because another DB2 subsystem in the DB2 data sharing group is abnormally terminating.

This abend reason code is issued by the following CSECTS: DSNTBFR

System Action: A 'resource unavailable' condition is returned to the user. This reason code, the resource type, and the resource name are also returned.

User Response: Resubmit the request.

System Programmer Response: Determine why the other DB2 member abnormally terminated. The 'resource unavailable' condition will be cleared when that DB2 member has completely terminated.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E3009E

Explanation: The plan depends on new facilities of the release from which fall back has occurred.

This abend reason code is issued by the following CSECT: DSNTAAL

System Action: The allocation for the user failed.

User Response: Do not use this plan until your DB2 subsystem is remigrated to the newer release.

System Programmer Response: Warn the user community NOT to run this plan until you have remigrated to the newer release.

00E30100

Explanation: This reason code can be returned in the following cases:

- A parallel task running on a DB2 terminates abnormally.
- An assisting DB2 terminates abnormally.

This reason code is issued by the following CSECTS: DSNTTTC, DSNTTREC

System Action: The member name where the failure occurred is returned to the application as the resource name in SQLCODE -904. In a non-data-sharing environment, the member name is blank, and the failure occurs on the local DB2.

Operator Response: Enter DISPLAY GROUP from an active DB2 to see if a DB2 subsystem is down. Restart the failed DB2 subsystem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E30101

Explanation: The result of issuing a SETFRR macro indicates that this FRR is not the top FRR.

This abend reason code is issued by the following CSECT: DSNTAC1

System Action: A record is written to SYS1.LOGREC. An SVC dump is requested.

System Programmer Response: This is probably a DB2 internal error. Obtain a copy of SYS1.LOGREC and the SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00E30104

Explanation: This reason code is used by the service controller (SC) subcomponent to respond NO on a prepare-to-commit notification.

This abend reason code is issued by the following CSECT: DSNTAC1

System Action: If the service controller indicates that DB2 cannot commit to perform the work requested by the application since the last commit point, it responds NO on the prepare-to-commit notification (COMMIT1). This forces the commit to be changed to an abort, causing the work performed by the application since the last commit point to be backed out.

00E30105

Explanation: IRLM was informed of a link failure to a coupling facility that contains a lock table being actively used by this data sharing group.

System Action: The DB2 subsystem is terminated with this reason code.

System Programmer Response: See IRLM message DXRxxxE to determine the root cause of the failure and the appropriate corrective action.

Problem Determination: This abend reason code is issued by the following CSECT: DSNTLSTA

00E30301

Explanation: You have attempted to execute a plan that does not exist. This reason code is used by the automatic BIND function to indicate that no record exists in SYSIBM.SYSPLAN for the plan-ID you are attempting to run, so plan allocation fails.

This reason code is issued by the following CSECT: DSNTBAB

System Action: The plan is not executed.

User Response: Determine if the object name was correctly specified. If so, ensure that the plan exists (by selecting from SYSIBM.SYSPLAN).

00E30302

Explanation: This reason code is used by the automatic BIND function to indicate that the plan currently being allocated is not operational. The automatic BIND for the plan failed because the plan was dependent on something that was altered or dropped. An unavailable database might also cause this problem.

This reason code is issued by the following CSECT: DSNTBAB

System Action: The autobind fails, and the plan cannot be allocated.

System Programmer Response: Determine what made the plan not operational. Make sure the required database is available. Issue a REBIND subcommand for the plan.

00E30303

Explanation: You have attempted to execute a package that does not exist. This reason code is used by the automatic package BIND function to indicate that no record exists in SYSIBM.SYSPACKAGE for the package-ID you are attempting to run, so package allocation fails.

This abend reason code is issued by the following CSECT: DSNTBAB2

System Action: Package allocation fails.

User Response: Determine if the object name was correctly specified. If so, ensure that the package exists (by selecting from SYSIBM.SYSPACKAGE).

00E30305

Explanation: This reason code is used by the automatic BIND function to indicate that the package currently being allocated is not operational. That upon which the package was dependent has been altered or dropped, causing the automatic BIND for the package to fail.

This abend reason code is issued by the following CSECT: DSNTBAB2

System Action: Agent allocation fails or DROP package fails.

System Programmer Response: Determine what has made the package not operational. Issue a REBIND subcommand for the package.

00E30306

Explanation: This reason code is returned when the automatic bind for plan is disabled. The automatic bind is disabled through the installation process.

This abend reason code is issued by the following CSECTs: DSNTAAL, DSNXAAB, DSNXEAL

System Action: The plan is not automatically bound.

System Programmer Response: Rebind the plan prior to execution.

00E30402

Explanation: This subcode is found in register 2 to clarify abend reason code X'00E30077'. See X'00E30077' for more information.

This reason code is issued by the following CSECT: DSNTDINQ

00E30405

Explanation: This subcode is found in register 2 to clarify abend reason code X'00E30077'. See X'00E30077' for more information.

This reason code is issued by the following CSECT: DSNTDINQ

00E30406

Explanation: This subcode is found in register 2 to clarify abend reason code X'00E30077'. See X'00E30077' for more information.

This reason code is issued by the following CSECT: DSNTDMST

00E30407

Explanation: This subcode is found in register 2 to clarify abend reason code X'00E30077'. See X'00E30077' for more information.

This reason code is issued by the following CSECT: DSNTDDIS

00E30700

Explanation: A resource limit as determined from the active resource limit specification table has been exceeded. The SQL statement has been terminated with an SQLCODE -905.

This abend reason code is issued by the following CSECTs: DSNB1GET, DSNXSRID

System Action: The current SQL statement contains an SQLCODE -905.

User Response: See the text for the SQLCODE -905. It will specify the resource limit that was exceeded. The SQLCODE -905 text will also include the name of the resource limit specification table that was used to derive the limit. Determine why the limit was exceeded.

Operator Response: Notify the system programmer.

System Programmer Response: An SQL statement used too much resource space. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E30800

Explanation: An attempt was made to identify to an IRLM that does not support the level of function DB2 needs. Message DSNT803I accompanies this abend reason code.

System Action: Message DSNT803I is issued to the console, and DB2 terminates abnormally with this reason code. A record is written to SYS1.LOGREC. No SVC dump is taken.

System Programmer Response: DB2 Version 6 requires IRLM Version 2.1, at a maintenance level that includes APAR PQ15290. Version 6 will not run with any earlier release of IRLM or with IRLM Version 2.1 at a lower level of maintenance. Ensure that the STEPLIB statement in your IRLM startup procedure is referencing the correct IRLM code library and that the appropriate level of maintenance has been applied.

Problem Determination:

00E30802

Explanation: DB2 was not able to identify to IRLM because another subsystem already identified to IRLM. Message DSNT811E accompanies this abend reason code.

00E30803 • 00E30807

System Action: Message DSNT811E is issued to the console. DB2 terminates abnormally with this reason code. A record is written to SYS1.LOGREC. No SVC dump is taken.

System Programmer Response: IRLM Version 2.1 enforces a one to one (1:1) mapping between IRLM and DB2. Multiple DBMS subsystems can no longer use the same IRLM. Ensure that:

- Each DB2 subsystem is associated with its own IRLM subsystem.
- The correct IRLM procedure name and subsystem name are specified in the DB2 system parameters.

Problem Determination: This reason code is issued by the following CSECT: DSNTLIDE

00E30803

Explanation: An error occurred in one of the DB2-supplied exits to IRLM. This abend reason code is issued only in a DB2 sharing data environment and indicates an internal error in DB2 or IRLM.

System Action: A record is written to SYS1.LOGREC and an SVC dump is initiated. DB2 terminates abnormally.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSNTLPNE

00E30805

Explanation: DB2 could not activate one of the exits used with IRLM for data sharing. This is a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is initiated. DB2 terminates abnormally.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This reason code is issued by the following CSECT: DSNTRSTE

00E30806

Explanation: IRLM could not successfully join its IRLM data sharing group. Message DSNT800I accompanies this abend reason code.

System Action: Message DSNT800I is issued to the console, and DB2 abnormally terminates with this reason code. A record is written to SYS1.LOGREC. No SVC dump is taken.

System Programmer Response: Some possible

reasons why IRLM could not join its data sharing group are:

- The lock structure is not properly defined in the active MVS CFRM administrative policy. The lock structure name is a concatenation of the DB2 data sharing group name and the string 'LOCK1', separated by an underscore (_). For example, if the DB2 data sharing group name is DSNCAT, DSNCAT_LOCK1 would be the lock structure name.

Ensure that the lock structure is properly defined in the active MVS CFRM policy. The name of the lock structure that IRLM attempted to access is given in message DSNT800I. IRLM issues message DXR138E to indicate that the lock structure definition could not be accessed in the active MVS CFRM policy.

- IRLM could not connect the lock structure. The reason for the connect failure is given in IRLM message DXR135E.
- IRLM could not join its data sharing group. The reason for the join failure is given in IRLM message DXR134E.
- IRLM joined the wrong group. The set of IRLMs that are connected to a given lock structure must all be members of the same group.

Ensure that the GROUP parameter is correctly specified in the IRLM startup procedure. If you give an incorrect group name, IRLM connects the lock structure, and then times out waiting for responses from other connectors. IRLM issues message DXR133I for the timeout.

Problem Determination: This reason code is issued by the following CSECT: DSNTLIDE

00E30807

Explanation: DB2 failed on the IRLM Identify request because no lock structure name was specified. Message DSNT810E accompanies this abend reason code.

System Action: Message DSNT810E is issued to the console, and DB2 terminates abnormally with this reason code. A record is written to SYS1.LOGREC. No SVC dump is taken.

System Programmer Response: This condition occurs if you are not running DB2 in data sharing mode, but the associated IRLM is running with global scope (SCOPE=GLOBAL in the IRLM startup procedure). If you are not running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=LOCAL. Conversely, if you are running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=GLOBAL.

Problem Determination: This reason code is issued by the following CSECT: DSNTLIDE

00E30808

Explanation: DB2 issued an IRLM PURGE request to purge retained locks, but the PURGE request was not successful. This abend reason code accompanies message DSNT807I.

System Action: A record is written to SYS1.LOGREC and an SVC dump is initiated. The DB2 restart process is terminated.

System Programmer Response: The IRLM return and reason codes are in the SYS1.LOGREC record.

Problem Determination: This abend reason code is issued by the following CSECT: DSNTTRSTE

00E30809

Explanation: DB2 failed on the IRLM Identify request because IRLM did not return the lock structure version ID. Message DSNT809I accompanies this abend reason code.

System Action: Message DSNT809I is issued to the console, and DB2 abnormally terminates with this reason code. A record is written to SYS1.LOGREC. No SVC dump is taken.

System Programmer Response: This condition occurs if you are running DB2 in data sharing mode, but the associated IRLM is running with local scope (SCOPE=LOCAL in the IRLM startup procedure). If you are running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=GLOBAL. Conversely, if you are not running DB2 in data sharing mode, ensure that the associated IRLM startup procedure specifies SCOPE=LOCAL.

Problem Determination: This reason code is issued by the following CSECT: DSNTLIDE

Chapter 47. X'E4.....' codes

Many of the utilities codes ask you to determine the failing environment. This means that you should determine the following things:

- The address space in which the failure occurred
- The utility that was running
- Whether it was a restart of a utility that failed previously
- Whether the job step invocation was through the DSNUTILB program
- Whether a -DISPLAY or -TERM UTILITY command was involved.

To assist you in determining the problem, register 2 might contain a secondary reason code. This secondary reason code might be an IBM internal reason code; therefore, it might not be documented here.

When DB2 resources are unavailable to utilities, message DSNT500I are issued along with the utility reason code. Refer to message DSNT500I for the correct action.

00E40000

Explanation: A function of DB2 was invoked and attempted to establish a functional recovery environment. The functional recovery element (FRE) that was created was not the first one.

This abend reason code is issued by the following CSECTs: DSNUGCKW DSNUGCUR

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested. The execution unit is abended.

Operator Response: Notify the system programmer.

Problem Determination: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E40001

Explanation: No cursor table was present at entry to database services portion of utility.

This abend reason code is issued by the following CSECT: DSNUGRAR

System Action: The utility job step that caused the function to be requested is abended. Utility processing is not initiated.

System Programmer Response: This is an internal error. Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem

determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40002

Explanation: The caller of the database services portion of the utility was in the wrong protect key.

This abend reason code is issued by the following CSECTs: DSNUGBAC, DSNUGRAR

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment.

If a JOBLIB or STEPLIB is being used in the batch utility job, check that all application program libraries included in the concatenation are authorized.

Check that the batch utility program DSNUTILB was included in the MVS program properties table during the installation of DB2. The entry for DSNUTILB in the MVS program properties table was provided by MVS. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40003

Explanation: An error occurred while getting FRBPARM from application storage.

This abend reason code is issued by the following CSECT: DSNUGRAR

System Action: The utility job step that caused the

00E40004 • 00E40006

function to be requested is abended. The utility job is placed in the stopped state.

System Programmer Response: Determine the failing environment., in particular whether invocation was through program DSNUTILB. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the environment was DSNUTILB, the problem could be internal.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40004

Explanation: An error occurred while getting FRB from application storage.

This abend reason code is issued by the following CSECT: DSNUGRAR

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

System Programmer Response: Determine the failing environment. In particular, determine whether invocation was through program DSNUTILB. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the environment was DSNUTILB, the problem could be internal.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40005

Explanation: A nonzero reason code was returned from MVS sort.

This abend reason code is issued by the following CSECT: DSNUGSOR

System Action: Any error message generated by sort in conjunction with the nonzero reason code is directed to the device/data set identified by the UTPRINT DD statement in the utility job step.

Error message DSNU044I, that contains the nonzero reason code, is directed to the device/data set identified by the SYSPRINT DD statement in the utility job step.

User Response: Determine the cause of the error. If the error can be corrected, the utility may be restarted from the beginning of the sort phase by using the 'RESTART(PHASE)' parameter. If the error prevents the utility from completing, the -TERM command should be issued to remove the stopped utility from the system.

The -TERM UTILITY should seldom be used when the stopped utility is REORG.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this may not be necessary).

Problem Determination: This abend is accompanied by the utility message DSNU044I, that contains the sort reason code and an SVC dump. In most cases, the error messages from SORT that are sent to the device/data set identified by the UTPRINT DD statement identify the problem. The dump may not be needed. If SORT is unable to open the UTPRINT data set, only the message and abend are provided. In this case, correct the problem associated with the UTPRINT DD statement, and restart the job with the RESTART(PHASE) option.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40006

Explanation: An error was detected while manipulating the utility-in-progress bits of the DBA table. The error might occur if the SYSIBM.SYSUTIL table and the DBA table are out of sync, if the utility-in-progress condition was not properly reset after execution of a prior utility, or if a resource unavailable condition exists.

This abend reason code is issued by the following CSECT: DSNUGUIP

System Action: Utility processing is abended. This abend might be accompanied by message DSNT500I. An SDUMP might be requested.

User Response: If applicable, correct the resource unavailable condition identified by the DSNT500I message. For an explanation of resource types, see "Resource types" on page 1355. Either restart the utility from the last commit point or terminate the utility and submit it again.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code. Consult the system programmer to diagnose the problem.

System Programmer Response: Use the -DISPLAY UTILITY command to display the status of any utilities in progress. Determine if another utility is active on the same table space. Use the -DISPLAY DATABASE command to determine if the table space has a utility-in-progress condition set on.

The utility-in-progress bit is turned on only for table spaces. If a utility is run against an index, the utility-in-progress bit is turned on for the appropriate table space.

A utility-in-progress condition set without a corresponding entry for an active or stopped utility in the SYSUTIL table is an inconsistent condition caused by a prior error. To resolve this, issue a -START DATABASE command specifying the proper table space with the ACCESS(FORCE) parameter. This causes the utility-in-progress status to be cleared.

If the problem cannot be corrected, determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the condition cannot be corrected, determine the failing environment.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61, 72.

00E40007

Explanation: The COPY utility function is unable to open the table space as directed. The failure can occur because the table space is currently not available. The failure can also be an internal error.

This abend reason code is issued by the following CSECTs: DSNUBAID DSNUBASI

System Action: If the table space is currently not available, a DSNT500I RESOURCE UNAVAILABLE message is directed to the device or data set identified by the SYSPRINT DD statement. The utility job step is placed in the stopped state.

User Response: If the abend was accompanied by a DSNT500I message, look up DSNT500I in Chapter 18, "DSNT... Messages," on page 417 to determine the cause of the resource unavailability. You can restart the utility when the resource becomes available, or you can terminate the utility job step and resubmit the job at a later time.

If a DSNT500I message was not issued, an internal processing error occurred. Provide the system programmer with dumps and messages for fault analysis.

Operator Response: After the environmental information is determined, an operator with SYSOPR authority can terminate the utility job step and free the resources, but this might not be necessary.

System Programmer Response: If a DSNT500I message preceded the abend, follow the procedures outlined under that message number in Chapter 18, "DSNT... Messages," on page 417 for Problem Determination. Otherwise, determine the failing environment.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40009

Explanation: An error was detected while attempting to access the target object (table space or index space).

This abend reason code is issued by the following CSECTs: DSNUGACC, DSNUGAGS, DSNUGUTC, DSNURLOG

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. The DSNT500I message might be preceded by other related messages on the console. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4000A

Explanation: An error has been detected while force closing a page set.

This abend reason code is issued by the following CSECTs: DSNUCLVE, DSNUGACC

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: This is an internal error. Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4000C

Explanation: This is an internal control error. The utility subcomponent that manages the function control flow associated with DB2 database services has been requested to perform a function that it does not recognize.

00E4000D • 00E4000F

This abend reason code is issued by the following CSECTs:

DSNUBCOP DSNUBFFR DSNUCBFW DSNUGRAR

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: To determine how much of the requested function within the job step was completed, examine the data set/device identified by SYSPRINT. Consult the system programmer to diagnose the problem. Determine whether the utility job step should be terminated in order to release resources.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to free resources (this might not be necessary).

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4000D

Explanation: An error was detected while scanning or updating table SYSIBM.SYSUTIL.

This abend reason code is issued by the following CSECTs:

DSNUGSRI DSNUGDIS DSNUGSRI DSNUGTER

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4000E

Explanation: An error was detected while attempting to create a cursor block (CUB).

This abend reason code is issued by the following CSECTs: DSNUGACC, DSNUKINE

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4000F

Explanation: An error was detected while checking or setting the state of the database exception table (DBET). This abend might be accompanied by message DSNT500I.

System Action: Utilities processing is abended. An SDUMP might be requested.

User Response: Correct the 'resource unavailable' condition identified by message DSNT500I. Either restart the utility from the last commit point or terminate the utility and restart it from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem.

If the condition cannot be corrected, determine the failing environment.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs:

DSNUGCKP DSNUGDTC DSNUGSRX DSNUGTER
 DSNURBXC DSNURICP DSNUBAFI DSNUBAID
 DSNUBARI

00E40010

Explanation: A request to IRLM on behalf of a DB2 utility to lock a page or an entire table space has failed. This is either an internal DB2 or an IRLM problem. The error occurred in the database services address space.

This abend reason code is issued by the following CSECTs: DSNUCDA1, DSNUCRVL

System Action: The utility job is abended. An SVC dump is requested (with the address of the IRLM parameter list, RLPL, in register 4). The utility is placed in the stopped state.

User Response: Consult the system programmer to diagnose the problem. Determine if the utility should be terminated.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to free resources (this might not be necessary).

System Programmer Response: Check the IRLM return and reason codes in the RLPL. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40011

Explanation: An attempt to extend the error range information in the database allocation table (DBAT) failed.

This abend reason code is issued by the following CSECT: DSNUCDA1

System Action: The I/O error that did not get recorded in the DBAT table was reported in error message DSNU086E, that was directed to the device/data set identified by the SYSPRINT DD statement. The utility job step is placed in the stopped state.

User Response: The system programmer should be notified and given the relevant environmental information. Subsequent to its correction, the stopped utility can be restarted using the RESTART option, or it can be terminated and resubmitted at a later time.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the

failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40012

Explanation: An error was detected while attempting to find a database descriptor block (DBD) address.

This abend reason code is issued by the following CSECTs:

DSNUGACC DSNUGCKP DSNUGMAP DSNQUAIA
 DSNUSINI

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 60, 61, 46.

00E40013

Explanation: An error was detected while creating a ECB exit for -STOP DB2.

This abend reason code is issued by the following CSECT: DSNUGBAC

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in

00E40014 • 00E40018

Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40014

Explanation: An error was detected from the terminate thread function.

This abend reason code is issued by the following CSECT: DSNUGBAC

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40015

Explanation: A RECOVER utility was initiated with the ERROR RANGE option specified. The request was rejected when it was determined that there was not a sufficient number of alternate tracks for the pages in the error range to be recovered.

This abend reason code is issued by the following CSECT: DSNUCRVT

System Action: The abend was issued in the database services address space. The dumps requested are dependent upon the JCL of the utility job step. The utility job step is abended. The utility is placed in the 'stopped' state.

User Response: Recovery can be accomplished by resubmitting the RECOVER utility without the ERROR RANGE option. Recovery can be by data set or the table space as a whole.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to free resources (this might not be necessary).

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40016

Explanation: A Recover utility was initiated with the ERROR RANGE option specified. An error was detected by the media manager while processing a MMCNVT macro invocation. This is an internal error within either DB2 or the media manager.

This abend reason code is issued by the following CSECT: DSNUCRVT

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to free resources if that should prove necessary (this might not be necessary).

System Programmer Response: The MMCNVT macro converts a VSAM RBA to its physical track address (CCHHR). At the time of abend, the following registers contain relevant information:

R2 Address of media manager interface block (MMIB).
R3 Address of field containing VSAM RBA to be converted.
R4 Address of area to receive CCHHR.
R5 MMCNVT places UCB address here.
R8 Return code from media manager. If you suspect an error in media manager, refer to *z/OS DFSMSdfp Diagnosis Reference*.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40017

Explanation: An error was detected from terminate identify.

This abend reason code is issued by the following CSECT: DSNUGBAC

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40018

Explanation: Either an error was detected during the execution of a restarted utility or a condition was detected that might have required restart of a utility. A message is issued prior to this abend code to indicate the type of error.

This abend reason code is issued by the following CSECT: DSNUGBAC

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Check messages issued prior to this abend code to determine the cause of the error. Correct the error, and restart the job.

Problem Determination: This abend is forced to allow restart of the utility when work data sets are used and the disposition is (MOD,DELETE,CATLG).

00E4001A

Explanation: An error was detected while using SVC 99 to retrieve information on the DD statements supplied.

This abend reason code is issued by the following CSECT: DSNUGCDD

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment.

Problem Determination: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4001B

Explanation: A DB2 utility has attempted to allocate a data set to the generic unit name SYSALLDA, but the allocation has failed. This dynamic allocation was attempted because the utility had been requested to perform sorts in parallel, a DFSPARM data set was present in the job JCL, the DFSPARM data set was allocated to SYSIN, and no SORTDEVT specification was supplied in the utility control statement.

System Action: Utility processing is abended.

User Response: If the failing utility was REORG, and the UNLOAD phase had completed, restart the utility after doing one of the following:

- Delete the DFSPARM data set from the job JCL.
- Create a DASD data set containing the DFSORT control statements you wish to use and change the job JCL to point to that data set instead of SYSIN.

If the failing utility was not REORG, or if it was REORG and the UNLOAD phase had not completed, use the -TERM command to terminate the utility. Then resubmit the job after doing one of the following:

- Delete the DFSPARM data set from the job JCL.
- Create a DASD data set containing the DFSORT control statements you wish to use and change the job JCL to point to that data set instead of SYSIN.

- Use the SORTDEVT keyword in the utility control statement to specify a generic device unit name (such as SYSDA) that can be used to do the dynamic allocation.

00E4001C

Explanation: An error was detected while attempting to map externals to a specific file object descriptor (OBD).

This abend reason code is issued by the following CSECT: DSNUGMAP

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4001D

Explanation: An error was detected while attempting to read a row from the SYSIBM.SYSSYNONYMS table.

This abend reason code is issued by the following CSECT: DSNUGMAP

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E4001E • 00E40022

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4001E

Explanation: An error was detected while attempting to read a row from the SYSIBM.SYSTABLES table.

This abend reason code is issued by the following CSECTs:

DSNUGMAP DSNUGTBN DSNUKINP DSNUCBRK

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 4, 5, 32, 46.

00E4001F

Explanation: An error was detected while attempting to read a row from the SYSIBM.SYSINDEXES table.

This abend reason code is issued by the following CSECT: DSNUGMAP

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40020

Explanation: An error was detected while attempting to RARQ to the database storage.

This abend reason code is issued by the following CSECT: DSNUGPRE

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40021

Explanation: Utility processing was performing an AUTHORIZATION CHECK for the utility user and specified object, when an error was detected. A necessary resource for the check was not available.

This abend reason code is issued by the following CSECTs: DSNUGMAP, DSNUKINE

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Make the resource available and either -TERM the utility and resubmit it, or resubmit the utility with the RESTART parameter. Refer to message DSNT500I in Chapter 18, "DSNT... Messages," on page 417. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This abend is accompanied by the message DSNT500I, that identifies the unavailable resource. The message is written to the SYSPRINT data set.

00E40022

Explanation: An error was detected while attempting to read a row from the SYSIBM.SYSUTIL table.

This abend reason code is issued by the following CSECT: DSNUGSUU

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40023

Explanation: The internal protocols required for utility update of table the SYSIBM.SYSUTIL have been violated. Utility modifications to SYSIBM.SYSUTIL were not committed.

This abend reason code is issued by the following CSECTs: DSNUGSRI, DSNUGSRX

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 47.

00E40024

Explanation: Internal protocols required for utility serialization were violated. Specifically, utility serialization cleanup was not invoked upon completion of utility processing.

This abend reason code is issued by the following CSECT: DSNUGUCA

System Action: The utility job step is terminated, placing the utility in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to

release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 47.

00E40025

Explanation: Utility processing attempted to allocate resources for this utility job step. The allocate protocol has returned a nonzero return code.

This abend reason code is issued by the following CSECT: DSNUGUCA

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility, but this might not be necessary.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40027

Explanation: An error has been detected while attempting to update a row of the SYSIBM.SYSUTIL table.

This abend reason code is issued by the following CSECT: DSNUGSUU

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either

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restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40028

Explanation: An error has been detected while attempting to COMMIT.

This abend reason code is issued by the following CSECTs: DSNUGUCA, DSNUGAGS

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40029

Explanation: An error has been detected while attempting to read a row from the SYSIBM.SYSUTIL table.

This abend reason code is issued by the following CSECTs: DSNUGUCA, DSNUGAGS

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4002A

Explanation: During utility restart processing, a record in the SYSUTILX checkpoint/restart area was not recognized. The utility might not be restartable.

This abend reason code is issued by the following CSECT: DSNUGSUG

System Action: Utility processing is abended.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error. Collect the following diagnostic items listed in "Appendix B. Diagnostic Items for Problem Determination": 1, 2, 4, 30, 31, 46, 49.

00E4002B

Explanation: The utility check pending protocol detected invalid parameters for the setting or resetting of the check pending state.

This abend reason code is issued by the following CSECT: DSNUGCKP

System Action: The utility job is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 60, 61.

00E4002D

Explanation: This abend is issued as a result of an error other than the 'resource unavailable' condition that was encountered while attempting to update a DB2 catalog for the setting or resetting of the check pending state.

This abend reason code is issued by the following CSECT: DSNUGCKP

System Action: An SVC dump is requested, the error flag in the DBA table is set on for the table space for which the check pending state is being set or reset, and processing continues.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Determine the reason for the catalog access error. This abend is accompanied by console message DSNU972I. See the problem determination for this message for a description of how processing is affected by this error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 60, 61.

00E4002E

Explanation: During utility serialization or utility restart, an attempt to either read or retrieve from SYSUTIL or SYSUTILX has failed.

System Action: DB2 abends the utility job.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 69.

00E40030

Explanation: A -DISPLAY UTILITY or -TERM UTILITY command has failed in the command subsystem.

This abend reason code is issued by the following CSECT: DSNUGCCC

System Action: Command processing is terminated. For -TERM UTILITY, all previous actions taken by the command are backed out.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This error is accompanied by additional messages and/or SVC dumps that identify the failure in the utility command subsystem. Refer to this manual under those messages and/or codes for

additional problem determination.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40033

Explanation: Internal control blocks were scanned for internal IDs representing the SYSIBM.SYSUTIL table. No corresponding ID was found.

This abend reason code is issued by the following CSECTs:

DSNUGAGS DSNUGDIS DSNUGSRI DSNUGTER

System Action: The utility job step is terminated, placing the utility in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the TERM UTILITY command to release the resources claimed by the stopped utility, but this might not be necessary.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 47.

00E40034

Explanation: The utility message generator was unable to obtain the requested storage. The available storage used to buffer messages produced by the database memory is full and a request to obtain more storage from subpool 229 failed.

This abend reason code is issued by the following CSECT: DSNUGMSG

System Action: Utility processing abends. No SYSABEND dump or SVC dump is requested.

User Response: This abend occurs due to a system resource limit. It might be necessary to modify the utility control statement.

If the abend occurs as a result of the LOAD utility, attempt to restart the job. If failure recurs, it might be necessary to change the discard limit or correct the situation that caused many error messages to be produced.

If the abend occurs as a result of the REPAIR utility, change the beginning page number to the last page number printed plus one, or change the number of pages to be dumped to a smaller number. Resubmit the job.

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If the abend occurs as a result of the REBUILD INDEX utility, the unique index might have to be dropped and recreated as a nonunique index. If a unique index is required and the data contains a large number of duplicates, the duplicates must be reduced before attempting to rebuild the index again.

Problem Determination: Refer to the prior error messages to determine how to correct the problem.

00E40035

Explanation: The -START ACCESS FORCE command was issued when DSNDB01.SYSUTILX was in a pending state, which prohibits further processing. The pending state was either copy or recovery pending.

This abend reason code is issued by the following CSECT: DSNUGTER

System Action: Utility processing is abended.

User Response: Notify the system programmer so that the pending condition can be resolved.

System Programmer Response: Issue a -DISPLAY DATABASE command to determine the state of DSNDB01.SYSUTILX. If the state is copy pending, do a full image copy. If the state is recovery pending, use the RECOVER utility to recover DSNDB01.SYSUTILX.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40040

Explanation: An error was returned from the DSNILREQ protocol during page level locking. This abend code is accompanied by message DSNT500I that explains the 'resource unavailable' condition.

This abend reason code is issued by the following CSECTs: DSNUCBFW, DSNUCBRP.

System Action: Utility processing is abended and the utility is placed in a stopped state.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Then, either restart the utility from the last commit point or terminate the utility and restart it from the beginning.

System Programmer Response: If the conditions identified in the DSNT500I message can not be corrected, determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Refer to the description for message DSNT500I.

Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

00E40045

Explanation: A failure has occurred during an attempt to free storage.

This abend reason code is issued by the following CSECTs: DSNUGSTB, DSNUGSTA

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can terminate the utility job step and free the resources (this might not be necessary). However, this should not be done until after the diagnostic environment has been established.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40051

Explanation: Invalid OTYPE was passed to DSNUGMAP.

This abend reason code is issued by the following CSECT: DSNUGMAP

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can terminate the utility job step and free up any resources (this might not be necessary). However, this should not be done until after the diagnostic environment has been established.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40053

Explanation: An invalid OBID of zero was found by the module that maps external object names to OBIDs.

This abend reason code is issued by the following CSECT: DSNUGMAP

System Action: The utility job step that caused the

function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

Operator Response: An operator with SYSOPR authority can terminate the utility job step and free any resources (this might not be necessary). However, this should not be done until after the diagnostic environment has been established.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: OBIDs are extracted from the DB2 catalog. The OBID for a table space is found in the SYSIBM.SYSTABLESPACE table. The OBID for a table is found in the SYSIBM.SYSTABLES table. The OBID for an index is found in the SYSIBM.SYSINDEXES table. If the object exists, the OBID cannot be zero.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40070

Explanation: A utility data set could not be opened. The abend was issued to place the utility in the stopped state for review and correction.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: Utility error message DSNU036I or DSNU037I was issued. To identify the DD statement associated with the DCB that could not be opened. If neither message was issued, the SYSPRINT DD statement was omitted. The utility job step is placed in the stopped state.

User Response: If the ddname is one you submitted, review and correct it. Then resubmit the job. If the ddname is one the system provided, consult the system programmer. If neither message was issued, verify that the SYSPRINT DD statement exists.

Operator Response: An operator with SYSOPR authority can terminate the utility to release the held resources, but this may not be necessary.

System Programmer Response: Correct the JCL, and resubmit the job.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40071

Explanation: An I/O error was encountered on a required OS/VS data set. An abend was issued to place the utility in a stopped state for review and correction. Resubmit the utility.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: One of two utility error messages (DSNU032E or DSNU040I) is sent to the data set/device associated with the SYSPRINT DD statement of the utility job step. The error message identifies the error and the data set in error.

The utility is stopped at the beginning of the phase that used the OS/VS data set.

User Response: If the utility message was DSNU032E, the job can be restarted if an undamaged output data set is provided. Obtain an undamaged output data set, and restart the utility job step with the RESTART(PHASE) option. The job cannot be restarted if an unload data set, during the RELOAD phase of either the LOAD or REORG, is used as input instead of output.

If utility message was DSNU040I, determine the problem as described in Problem Determination. Then either resubmit the utility job using the RESTART option, or -TERM the utility job step.

Operator Response: An operator with SYSOPR authority can terminate the utility and release any held resources (this might not be necessary).

Problem Determination: Problem determination depends upon which error message was directed to the data set/device identified by the SYSPRINT DD statement.

If DSNU032E was issued, an I/O error was encountered on a required utility work data set. The message describes the error and the data set in error.

If DSNU040I was issued, an error has occurred during BSAM access to the data set defined by the DD statement specified in the message. The DECB provided as a hexadecimal string contains the ECB in the first four bytes. The first byte of the ECB contains status bits that indicate the cause of the error.

There might be an IOS message on the MVS console SYSLOG indicating the type of I/O error that occurred. If an IOS message was issued, follow the problem determination directions for the message. Refer to the appropriate MVS publication for the meaning of the status bits.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40072

Explanation: An error was encountered while processing a BSAM data set.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: A message identifying the error might

have been sent to the data set/device associated with the SYSPRINT DD statement of the utility job step. If no prior message was produced, a dump was requested. The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: If a message was produced to identify the error, refer to that message description for the proper action. If no message can be found, then notify the system programmer.

Operator Response: Notify the user or system programmer.

System Programmer Response: Review the job output and failing environment. If a message was produced to identify the error, correct the error and resubmit or restart the job. If no message was produced, then a dump should have been requested. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Problem determination depends upon which error message, if any, was directed to the data set/device identified by the SYSPRINT DD statement. If a message was produced, it describes the type of error and data set involved. Refer to the message description for information on what action to take. If no message was produced, then this might be an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40073

Explanation: An internal error was encountered while processing a BSAM data set. The utility in progress issued an internal read to a BSAM data set after end-of-file was returned for the data set.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: The utility job step is terminated, placing the utility in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 4, 5, 32, 46.

00E40074

Explanation: An internal error was encountered while processing a BSAM data set. The utility in progress issued an internal point to a BSAM data set which is opened for write. Point is only valid for data sets opened for read.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: The utility job step is terminated, placing the utility in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 17, 32.

00E40075

Explanation: An end-of-data (EOD) has been encountered while attempting to reposition an input data set during the restart of a utility.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: Processing is abnormally terminated. A system dump is requested.

User Response: Review the JCL and ensure that the input data set is correct. Further analysis might be necessary.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 61, 32.

00E40079

Explanation: A utility work data set has a block size that is too small to accommodate the data to be written. An abend is issued to place the utility job step in a stopped state. This allows the error to be reviewed and corrected, and the job step to be resubmitted.

This abend reason code is issued by the following CSECT: DSNUGSDA

System Action: Utility error message DSNU038I is directed to the device/data set identified by the SYSPRINT DD statement. The utility job step is placed in the stopped state.

User Response: Delete the data set in error. Change

the JCL so that the block size for the data set with the ddname nominated in error message DSNU038I is at least the indicated block size. Resubmit the utility job step with RESTART(PHASE) option.

Problem Determination: Utility error message DSNU038I is directed to the device/data set identified by the SYSPRINT DD statement. It gives the name of DD statement that defines the data set with the inadequate block size and gives the minimum block size in bytes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40080

Explanation: An error has been detected during utility termination cleanup. The DSNXKACC CLOSEALL protocol has returned an error.

This abend reason code is issued by the following CSECT: DSNUGUCA

System Action: The utility job step is placed in the stopped state.

Problem Determination: This abend code might be accompanied by a DSNT500I error message that might indicate a correctable problem.

If the DSNT500I message has not been issued or if the problem can not be corrected, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40081

Explanation: The REORG utility has completed the UNLOAD phase while processing in a shared mode and has attempted to change to an exclusive mode for the RELOAD and subsequent phases. Utility processing has detected an internal error.

This abend reason code is issued by the following CSECT: DSNUGSRX

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic item listed in

Appendix B, "Problem determination," on page 1353: 47.

00E40082

Explanation: An error has been detected by utility serialization protocols. Protocols were issued in the wrong order.

This is an internal error and cannot be corrected by the user.

This abend reason code is issued by the following CSECT: DSNUGSRX

System Action: Utility processing is abnormally terminated and the utility is placed in a stopped state. An SDUMP is requested.

User Response: The -TERM UTIL command can be issued to free resources held by the failing utility.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40083

Explanation: An error was detected by utility serialization protocols. Required parameters are missing or contain invalid values.

This is an internal error and cannot be corrected by the user.

This abend reason code is issued by the following CSECT: DSNUGASO

System Action: Utility processing is abnormally terminated and the utility is placed in a stopped state. An SDUMP is requested.

User Response: Issue the -TERM UTIL command to free resources held by the failing utility.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40085

Explanation: A utility serialization LOCK or UNLOCK request has received an error from the IRLM. Either message DSNU099I is issued prior to this abend code to provide information about the error or message DSNI002I is issued if the problem occurred while running the START DATABASE ACCESS(FORCE) command.

This abend reason code is issued by the following CSECTs:

DSNUGDIS DSNUGSRI DSNUGSRX DSNILSTS

00E40090 • 00E400A0

System Action: Either the utility job step is terminated and the utility is placed in a stopped state or the START DATABASE command abnormally terminates.

User Response: Notify the system programmer. An attempt can be made to restart the utility or rerun the START DATABASE command.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command if the user does not wish to attempt to restart the utility. For the START DATABASE command, rerun the command.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. For the START DATABASE command, no response is needed.

00E40090

Explanation: Utility processing is unable to invoke the designated utility, because an internal error has occurred. The specified utility is not recognized by the utility job controller.

This abend reason code is issued by the following CSECTs:

DSNUGUTC DSNUGDFL DSNUGSRI

System Action: The utility job step is terminated, placing the utility in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40091

Explanation: Utility access path creation was invoked specifying an incorrect OBID.

This abend reason code is issued by the following CSECT: DSNUGACC

System Action: The utility job step is terminated, placing the utility in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40096

Explanation: Utility access path creation has detected an invalid OBID. The specified value is too small, too large, or does not exist in the subsystem.

This abend reason code is issued by the following CSECT: DSNUGACC

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E400A0

Explanation: An error was detected while the internal structure to access the tables of a table space was being built. The table space had no tables.

This abend reason code is issued by the following CSECT: DSNUGACC

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E400AF

Explanation: A DSNGDALT macro invocation has returned a nonzero return code. An attempt to modify a DBD by setting the OBDIFIB bit on was unsuccessful.

This abend reason code is issued by the following CSECTs: DSNUGFIB, DSNURFIB

System Action: Processing is abended.

User Response: This abend might be caused by an unavailable resource. Check for a DSNT500I message being issued prior to the abend. A dump will be suppressed in this case. If no 'resource unavailable' condition is indicated, notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E400B0

Explanation: Utilities invocation of CREATE THREAD has ended abnormally.

This abend reason code is issued by the following CSECTs: DSNUGBAC, DSNUGUTC

System Action: The utility job step is terminated. No record of the utility job step remains in the system.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E400C0

Explanation: A -STOP DB2 MODE(FORCE) command has been entered while a utility was executing, or a -STOP DB2 MODE(QUIESCE) command has been entered while a utility with multiple input statements was executing and the current input statement execution has completed.

This abend reason code is issued by the following CSECTs: DSNUGPRE, DSNUGUTC

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the reason that the -STOP DB2 command was issued. After DB2 has been started again, the utility job can be restarted.

00E400C1

Explanation: DB2 failed while attempting to latch or unlatch an index page. This is an internal error.

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs:

DSNUSIDX DSNURFBI DSNUCBRL DSNUKGET
DSNUKIFK DSNURBXA DSNURBXC DSNURBXZ
DSNURBXE

00E400C2

Explanation: DB2 received an unexpected return code from MVS. This is an internal error.

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E400C3

Explanation: An error was detected during the restart of a utility that uses a TEMPLATE name specification to dynamically allocate the data sets. The data sets that need to be reused for restart were not found.

System Action: Utility processing is abended.

User Response: Examine the JCL and ensure that the TEMPLATE control statement specifies the correct disposition for the data sets. Further analysis might be needed.

Problem Determination: This abend is forced to allow restart of the utility when work data sets are used and

00E400D0 • 00E40103

the disposition is not MOD, DELETE, and CATLG (for example, not

DISP=(MOD,DELETE,CATLG)

).

00E400D0

Explanation: A conversion error occurred during the conversion of a string to a different coded character set.

System Action: The utility job is abended. The dump is suppressed.

User Response: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61 and report the problem.

00E400E0

Explanation: An attempt to modify the catalog information was unsuccessful.

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition that was identified by the DSNT500I message. Terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented here, it is an internal IBM code. Notify the System Programmer.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40100

Explanation: DB2 failed during execution of the DSNBGETP macro.

This abend reason code is issued by the following CSECTs:

DSNUCBFW DSNUBCL5 DSNUCRVA DSNUBAFI
DSNUBAID DSNUBASI DSNUBASM DSNUBASP

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis*

Guide and Reference for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40101

Explanation: DB2 failed during execution of the DSNBSETW macro.

This abend reason code is issued by the following CSECT: DSNUBASP

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40102

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNICCOB macro.

This abend reason code is issued by the following CSECT: DSNUAHR2

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40103

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNICCUB macro.

This abend reason code is issued by the following CSECTs: DSNUADP1, DSNUADP2

System Action: Utility processing is abended. The

abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40104

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNIDISP macro.

This abend reason code is issued by the following CSECTs: DSNUGDTC, DSNULOG1

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40105

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNIDLET macro. This abend reason code is issued by the following CSECTs:

DSNUADP1 DSNUADP2 DSNURLAP DSNURRRI

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40106

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNILRDO macro.

This abend reason code is issued by the following CSECTs: DSNUCLVL, DSNUCRVL

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40107

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNIIISRT macro.

This abend reason code is issued by the following CSECTs: DSNUAHR2, DSNURLAP

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

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Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40108

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNINEXH macro.

This abend reason code is issued by the following CSECTs:

DSNUADP1 DSNUADP2 DSNUAHR2 DSNUPLGR

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40109

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNIPGER macro.

This abend reason code is issued by the following CSECTs: DSNUCRVT, DSNUCRVA

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information

about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4010A

Explanation: DB2 failed during execution of the DSNIPSCB macro.

This abend reason code is issued by the following CSECTs:

DSNUCLVL DSNUCLVS DSNUCRVI DSNUGUIP
DSNUSINI DSNUBACI DSNUBAII DSNURLOG

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4010B

Explanation: DB2 failed during execution of the DSNIPZOP macro.

This abend reason code is issued by the following CSECTs:

DSNUCBFW DSNUCLVE
DSNUCRVA DSNUKINT

DSNUCLRS DSNUCLVS
DSNUCRVT DSNURBXC

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4010C

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNIREPL macro.

This abend reason code is issued by the following CSECTs: DSNUAHR2, DSNURLAP

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4010D

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNISETH macro.

This abend reason code is issued by the following CSECTs:

DSNUADP1 DSNUADP2 DSNUAHR2 DSNUBCL5
DSNUPLGR DSNURRRI

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable'

condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4010E

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNISRCF macro.

This abend reason code is issued by the following CSECT: DSNUCRVT

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4010F

Explanation: The data manager subcomponent of DB2 failed during execution of the DSNIRBA macro.

This abend reason code is issued by the following CSECT: DSNULOG1

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a

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secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40110

Explanation: The data space manager subcomponent of DB2 failed during execution of the reset of an index space or table space page set.

This abend reason code is issued by the following CSECTs:

DSNUCLRS DSNUCRVA DSNUCTER

System Action: The utility job is abnormally terminated. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility or terminate the utility and submit it again.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 32, 46, 61.

00E40111

Explanation: The data space manager subcomponent of DB2 failed during execution of the DSNPXTND macro.

This abend reason code is issued by the following CSECT: DSNUCBFW

System Action: The utility job is abended. DSM provides diagnostic information.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40112

Explanation: DSNUGMAP, a utilities program, failed.

This abend reason code is issued by the following CSECT: DSNUCBFW

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40113

Explanation: The data space manager subcomponent of DB2 failed during execution of the reset of an index space or table space page set.

This abend reason code is issued by the following CSECTs:

DSNUCLRS DSNUCRVA DSNUCTER

System Action: The utility job is abnormally terminated. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message and either restart the utility or terminate the utility and submit it again. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that will give more information about the problem. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment, and if you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See message DSNT500I in this manual for a 'resource unavailable' condition.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 32, 46, 61.

00E40114

Explanation: DB2 failed during execution of DSNICLPS.

This abend reason code is issued by the following CSECTs:

DSNUCLRS DSNUCRVA DSNUGUIP

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40115

Explanation: The data manager subcomponent of DB2 failed during execution of DSNIUSTP.

This abend reason code is issued by the following CSECTs:

DSNUCLVE DSNUCRVA DSNURBXA DSNURBXC

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40116

Explanation: Either DSN3SYNC or DSN3ABRT failed.

This abend reason code is issued by the following CSECTs:

DSNUBCL0 DSNUCRVA DSNUCRV0

System Action: The utility job step that caused the

function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40117

Explanation: DSNURBXB, a utilities module, failed.

This abend reason code is issued by the following CSECT: DSNUCRVI

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40118

Explanation: The data space manager subcomponent of DB2 failed during execution of the DSNPGNPO macro.

This abend reason code is issued by the following CSECT: DSNUCRVA

System Action: The utility job is abended. The DSM provides any required diagnostic information, such as messages, dumps, or log records.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

00E40119

Explanation: This abend reason code is issued in these instances:

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- During recovery, a full image copy was not found for the DB2 directory or the DB2 catalog table space.
- The MERGECOPY utility did not recognize a record from the SYSIBM.SYSCOPY catalog table.

This abend reason code is issued by the following CSECT: DSNUBCL0

System Action: The utility job is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: When the recovery of the DB2 catalog or directory table space is requested, make sure that a full image copy has been taken first. If the MERGECOPY utility abended, either issue a select statement or run the REPORT utility to check the SYSIBM.SYSCOPY table for invalid rows.

00E4011A

Explanation: An error occurred in the RECOVER utility while applying log with log RBA=0.

This abend reason code is issued by the following CSECTS: DSNUCLVL, DSNUCRVL

System Action: The utility job is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Make sure the SYSLGRNX table space is not empty before applying the log.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 53, 60.

00E4011B

Explanation: The data manager subcomponent of DB2 failed during the execution of DSNIHDFM.

This abend reason code is issued by the following CSECTS: DSNUCRVA, DSNUCLVE

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be requested.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility or terminate the utility and execute it from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information

about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E4011C

Explanation: The log manager subcomponent of DB2 failed during execution of the DSNJLGR macro.

This abend reason code is issued by the following CSECTS: DSNULOG1, DSNUGLGR

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

System Programmer Response: Register 2 contains a secondary reason code. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 6, 16, 32, 33, 53, 60, 61.

00E4011D

Explanation: DB2 detected an error during execution of the DSNIDDRN macro. This is an internal error.

This abend reason code is issued by the following CSECT: DSNUCBRP

System Action: The utility job step that caused the function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 4, 31, 32, 47, 50.

00E4011F

Explanation: The RECOVER utility is unable to clear the group buffer pool pending status.

System Action: The RECOVER utility abends with this code.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNUCARS

00E40120

Explanation: A delete of SYSLGRNX information failed during -TERM UTILITY command processing for a REORG utility in the RELOAD phase.

This abend reason code is issued by the following CSECT: DSNUBCOP

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40121

Explanation: A RDJFCB macro invocation returned a nonzero return code.

This abend reason code is issued by the following CSECT: DSNUBCKB

System Action: Processing is abended.

User Response: This is probably a user error. A DD statement might be missing or specified incorrectly. If the DD statements appear to be correct, there might be another cause of the error and you should notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The DD statement referred to by the COPYDDN Utility keyword might be missing or specified incorrectly. If COPYDDN was not specified, a DD statement with a default name equal to SYSCOPY must be present in the job step.

00E40122

Explanation: A IEFAB4UV invocation returned a nonzero return code.

This abend reason code is issued by the following CSECT: DSNUBCKB

System Action: Processing is abnormally terminated.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 4, 5, 32, 46.

00E40123

Explanation: The RECOVER TABLESPACE utility cannot access the SYSIBM.SYSVOLUMES catalog table to process a concurrent copy produced by the DFDSS DUMP command.

System Action: The RECOVER TABLESPACE utility abends.

System Programmer Response: Resolve the access problem to the SYSVOLUMES catalog table. Then restart the RECOVER TABLESPACE utility.

Problem Determination: See the console for additional diagnostic messages.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNUCADF.

00E40124

Explanation: A down level internal control block was detected.

System Action: The utility job step that requested the function is abended. The abend is accompanied by message DSNU424I.

00E40125 • 00E40165

User Response: Refer to the APAR mentioned in message DSNU424I.

System Programmer Response: Refer to the APAR mentioned in message DSNU424I.

Problem Determination: Refer to the APAR mentioned in message DSNU424I.

This abend reason code is issued by the following CSECT: DSNUBARR

00E40125

Explanation: The RECOVER utility was recovering an indexspace with index versioning active. The utility issued the DSNDBIXD macro which calls the Index Manager subcomponent. An error occurred while the Index Manager was building an internal control block.

System Action: The RECOVER INDEX/INDEXSPACE utility abends.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of Diagnosis Guide and Reference for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

This abend reason code is issued by the following CSECTS: DSNUCALA, DSNUCAWR, DSNUCAWT.

00E40126

Explanation: The RECOVER utility was recovering an indexspace with index versioning active. The utility issued the DSNIDDPB macro which calls the Index Manager subcomponent. An error occurred while the Index Manager was building the Index Descriptor Page.

System Action: The RECOVER INDEX/INDEXSPACE utility abends.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of Diagnosis Guide and Reference for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

This abend reason code is issued by the following CSECTS: DSNUCATM.

00E40163

Explanation: An error was detected during activity history recording insert of SYSIBM.SYSLGRNG or SYSLGRNX.

This abend reason code is issued by the following CSECT: DSNUAHR2

System Action: Processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40164

Explanation: An error was detected during activity history recording update of SYSIBM.SYSLGRNG or SYSLGRNX.

This abend reason code is issued by the following CSECT: DSNUAHR2

System Action: Processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40165

Explanation: An error was detected during an execution unit switch while performing application history recording or drop processing.

This abend reason code is issued by the following CSECTS: DSNUAHR1, DSNUADP1

System Action: Processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40166

Explanation: A delete of SYSIBM.SYSLGRNX information failed during DROP processing.

This abend reason code is issued by the following CSECT: DSNUADP2

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40167

Explanation: A delete of SYSIBM.SYSCOPY information failed during DROP processing.

This abend reason code is issued by the following CSECT: DSNUADP1

System Action: Processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40168

Explanation: The buffer manager (BM) subcomponent of DB2 failed during the execution of the DSNBPFPP macro.

This abend reason code is issued by the following CSECT: DSNUCRVA

System Action: The utility job step that caused the

function to be requested is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is a DB2 subsystem internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40170

Explanation: The COPY or RECOVER utility was executing in PARALLEL mode. An error occurred in the data transport mechanism while data was being transferred between the batch and the online DB2 address spaces.

System Action: The COPY or RECOVER utility abends.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

This abend reason code is issued by the following CSECTs: DSNUBBOP, DSNUCAWT.

00E40189

Explanation: An error was detected while inserting records from SYSIBM.SYSCOPY.

This abend reason code is issued by the following CSECT: DSNUBINS

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be requested.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point, or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to

00E40190 • 00E40194

Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40190

Explanation: An error was detected while scanning the SYSIBM.SYSCOPY catalog table.

This abend reason code is issued by the following CSECTs: DSNUMDEL DSNUBAUS

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be requested.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40191

Explanation: An error was detected while deleting records from SYSIBM.SYSCOPY.

This abend reason code is issued by the following CSECT: DSNUMDEL

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be requested.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40192

Explanation: An invalid call to DSNULOG1 was detected when a partial recovery function in DSNULOG1 was invoked. The passed parameter is not a TOCOPY or TORBA to SYSCOPY, SYSUTILX, or DSNDB01.

This abend reason code is issued by the following

CSECTs: DSNULOG1 DSNUBAUS

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

00E40193

Explanation: An error was detected while a utility was attempting to retrieve catalog table information. This is an internal error. This abend reason code is issued by the following CSECTs:

DSNUKINT DSNUGTBN DSNUGPAP

System Action: The utility job is abended. A SYSABEND dump of batch storage and an SVC dump of the database services storage are requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 60, 61.

00E40194

Explanation: This is an internal error. An error was detected running the COPY utility with the SHRLEVEL CHANGE option.

System Action: The utility job step that requested the function is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 4, 5, 32,

This abend reason code is issued by the following CSECT: DSNUBAID

00E40195

Explanation: This is an internal error. An error was detected running the COPY utility with the SHRLEVEL CHANGE option.

System Action: The utility job step that requested the function is abended. The utility job is placed in the stopped state.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 4, 5, 32,

This abend reason code is issued by the following CSECT: DSNUBAID

00E40196

Explanation: DB2 detected an error while reading the catalog history tables.

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition that is identified by the DSNT500I message, terminate the utility, and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented here, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40197

Explanation: DB2 detected an error while deleting rows from the catalog history table.

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition that is identified by the DSNT500I message, terminate the utility, and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented here, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40201

Explanation: RUNSTATS was unable to reposition and continue processing after a COMMIT.

This abend reason code is issued by the following CSECTS: DSNUSIDX, DSNUSTBL

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40202

Explanation: An error was detected while scanning a table space or index during RUNSTATS processing.

This abend reason code is issued by the following CSECTS: DSNUSIDX, DSNUSTBL

System Action: Utilities processing is abended.

User Response: If message DSNT500I was issued, assure that the indicated resource is available and resubmit the job, otherwise notify the system programmer.

System Programmer Response: If message DSNT500I was issued, refer to the description of the message in Chapter 18, "DSNT... Messages," on page 417, otherwise, this is an internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40203

Explanation: An error was detected in a parameter list passed to the RUNSTATS message-formatting routine.

This abend reason code is issued by the following CSECT: DSNUSMSG

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61,

00E40204

Explanation: An error was detected while attempting to locate the PBO control block for a table space partition.

This abend reason code is issued by the following CSECT: DSNUSTBL

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61,

00E40205

Explanation: An error was returned from COMMIT or ABORT processing during RUNSTATS.

This abend reason code is issued by the following CSECTS:

DSNUSDRB DSNUSIDX DSNUSTBL

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40206

Explanation: DB2 detected an error while updating the statistics in the SYSIBM.SYSCOLUMNS or SYSIBM.SYSCOLUMNS_HIST catalog table.

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition that is identified by the DSNT500I message, terminate the utility, and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented here, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40207

Explanation: DB2 detected an error while updating the statistics in the SYSIBM.SYSINDEXES or SYSIBM.SYSINDEXES_HIST Catalog table.

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition that is identified by the DSNT500I message, terminate the utility, and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented here, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40208

Explanation: DB2 detected an error while updating the statistics in the SYSIBM.SYSINDEXPART or SYSIBM.SYSINDEXPART_HIST Catalog table.

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition that is identified by the DSNT500I message, terminate the utility, and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented here, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40209

Explanation: DB2 detected an error while updating the statistics in the SYSIBM.SYSTABLEPART or SYSIBM.SYSTABLEPART_HIST Catalog table.

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition that is identified by the DSNT500I message, terminate the utility, and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented here, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40210

Explanation: DB2 detected an error while updating the statistics in the SYSIBM.SYSTABLES or SYSIBM.SYSTABLES_HIST Catalog table.

System Action: Utilities processing is abended. The

abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition that is identified by the DSNT500I message, terminate the utility, and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented here, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40211

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSTABLESPACE Catalog table.

This abend reason code is issued by the following CSECTS: DSNUSCT6, DSNUSUTS

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40212

Explanation: A 'resource unavailable' condition was detected while attempting to access a catalog table during RUNSTATS processing.

This abend reason code is issued by the following CSECT: DSNUSVAL

System Action: Utility processing is abended. The abend will be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message and restart the utility. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that will give more information about the problem. Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment and if you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See message DSNT500I in this manual. See the secondary reason code from register 2, also in this manual. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40213

Explanation: DB2 detected an error while updating the statistics in the SYSIBM.SYSCOLDIST or SYSIBM.SYSCOLDIST_HIST catalog table.

System Action: Utilities processing is abended. Message DSNT500I might accompany this abend. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition that is identified by the DSNT500I message, terminate the utility, and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented here, it is an internal IBM code. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40214

Explanation: DB2 detected an error while updating the statistics in the SYSIBM.SYSTABSTATS or SYSIBM.SYSTABSTATS_HIST catalog table.

System Action: Utilities processing is abended. Message DSNT500I might accompany this abend. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition that is identified by the DSNT500I message,

terminate the utility, and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented here, it is an internal IBM code. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40215

Explanation: DB2 detected an error while updating the statistics in the SYSIBM.SYSINDEXSTATS or SYSIBM.SYSINDEXSTATS_HIST catalog table.

System Action: Utilities processing is abended. Message DSNT500I might accompany this abend. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition that is identified by the DSNT500I message, terminate the utility, and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented here, it is an internal IBM code. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40216

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSCOLSTATS catalog table.

This abend reason code is issued by the following CSECTs: DSNUSUPC DSNUSACO

System Action: Utilities processing is abended. Message DSNT500I might accompany this abend. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility, and start it again from the beginning. If DSNT500I was not issued, register 2

contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40217

Explanation: An error was detected while updating the statistics in the SYSIBM.SYSCOLDISTSTATS catalog table.

This abend reason code is issued by the following CSECTs: DSNUSUPD DSNUSACD

System Action: Utilities processing is abended. Message DSNT500I might accompany this abend. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message, terminate the utility, and start it again from the beginning. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40218

Explanation: DB2 detected an error while updating the statistics in the SYSIBM.SYSLOBSTATS or SYSIBM.SYSLOBSTATS_HIST Catalog table.

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition that is identified by the DSNT500I message, terminate the utility, and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not

documented here, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 32, 46.

00E40220

Explanation: An error was detected while accessing the SYSIBM.SYSTOGROUP catalog table during STOSPACE processing.

This abend reason code is issued by the following CSECT: DSNUTSSA

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40221

Explanation: An error was detected while accessing the SYSIBM.SYSTABLEPART catalog table.

This abend reason code is issued by the following CSECTs: DSNUTSSA, DSNUKINP

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to

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Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40222

Explanation: An error was detected while accessing the SYSIBM.SYSINDEXPART catalog table during STOSPACE processing.

This abend reason code is issued by the following CSECT: DSNUTSSA

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40223

Explanation: An error was detected while accessing the SYSIBM.SYSTABLESPACE catalog table.

This abend reason code is issued by the following CSECTs: DSNUTSSA, DSNUKINP

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40224

Explanation: An error was detected while accessing the SYSIBM.SYSINDEXES catalog table during STOSPACE processing.

This abend reason code is issued by the following CSECT: DSNUTSSA

System Action: Utility processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40225

Explanation: An error has been detected by DSNPSCAT during STOSPACE processing.

This abend reason code is issued by the following CSECT: DSNUTSSA

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40300

Explanation: An error occurred in END INDEX LOAD processing following a sequence of index entry loads.

This abend reason code is issued by the following CSECTs: DSNURBXA, DSNURBXC

System Action: The utility job is abended. A

SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40301

Explanation: An error was encountered while attempting to obtain the high used RBA for the data sets associated with the table space being reorganized.

This abend reason code is issued by the following CSECT: DSNURFIT

System Action: Processing abnormally terminates.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the reason the high used RBA could not be obtained, correct the situation, and restart the utility.

Problem Determination: The data sets associated with the table space being reorganized must be opened in order to obtain the high used RBA. Ensure that the data sets are available and can be opened by the utility.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E40302

Explanation: An error occurred while attempting to force a page set closed.

This abend reason code is issued by the following CSECTs:

DSNURBXA DSNURBxB DSNURCLP DSNURBXC

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40303

Explanation: An attempt was made to access the SYSIBM.SYSINDEXES catalog table to retrieve the NAME, CREATOR, TBNAME and TBCREATOR columns. An error was returned from the DSNXKACC protocol used to access SYSIBM.SYSINDEXES.

This abend reason code is issued by the following CSECTs: DSNUGIXN, DSNUKINT

System Action: The utility job is abended. Unless a 'resource unavailable' condition was indicated, a SYSABEND dump of batch storage is requested.

User Response: If a 'resource unavailable' message was issued, refer to the description for that message. If the unavailable resource becomes available, the utility step is restartable.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This might be an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40304

Explanation: An error occurred during key/RID pair delete processing for a nonclustering index.

This abend reason code is issued by the following CSECT: DSNURBXA

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 60, 32, 46, 61, 5.

00E40305

Explanation: An error occurred during the reset of an index space or table space page set or page set partition.

This abend reason code is issued by the following CSECTs: DSNURBXC, DSNUGRST

System Action: The utility job is abended. The abend may be accompanied by message DSNT500I. The

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DSNT500I may be preceded by other related messages on the console. An SDUMP may be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message and either restart the utility or terminate the utility and submit it again. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that will give more information about the problem. Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment, and if you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See message DSNT500I in this manual. See the secondary reason code from register 2.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40306

Explanation: An error occurred during a locate or create PSCB for a table space or index space page set.

This abend reason code is issued by the following CSECTs: DSNURBXC, DSNURBXC

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40307

Explanation: An error occurred during the creation of a dynamic cursor block (CUB) for a table space or index space page set.

This abend reason code is issued by the following CSECT: DSNURBXC

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40308

Explanation: An error occurred while attempting to allocate or deallocate storage for the table space record buffer.

This abend reason code is issued by the following CSECT: DSNURBXC

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40309

Explanation: An error occurred during the construction of an index entry. The error occurred while reading the table space record, while extracting the key from the table space record, or while connecting the entry into the index.

This abend reason code is issued by the following CSECT: DSNURBXC

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4030A

Explanation: A mismatch was found between the total number of keys processed during the current phase and the total number of keys expected to be processed in this phase.

System Action: The utility job is abnormally terminated, and all target objects are placed in rebuild

pending state. Message DSNU255I was issued earlier to report both the keys processed and the keys expected. A dump is requested.

User Response: TERM the utility and re-access the indexes by running REPAIR utility to reset the rebuild pending states on indexes. Run the CHECK INDEX utility to determine if any of the affected indexes are inconsistent. Inconsistent indexes may be recovered by the REBUILD INDEX or RECOVER utility.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If working data set was manipulated by user during restart process, make sure it was handled properly.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 4, 5, 32, 46.

00E4030B

Explanation: A mismatch was found between the total number of records processed during the current phase and the total number of records expected to be processed in this phase.

System Action: The utility job is abnormally terminated. Message DSNU254I was issued earlier to report the records that were processed and the records that were expected. A dump is requested.

User Response: Notify the System Programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Make sure that the unload data set was handled correctly.

Collect the following diagnostic items: listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E4030C

Explanation: An internal error occurred while building the dictionary.

This abend reason code is issued by the following CSECTs: DSNU DCTI DSNU DCTB DSNU DCTC DSNU DCTV DSNU RBDC DSNU RPDC DSNU RWBF

System Action: The utility is stopped.

Operator Response: If necessary, an operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility.

System Programmer Response: Determine the

failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items: listed in Appendix B, "Problem determination," on page 1353: 1, 2, 4, 5, 32, 46.

00E4030D

Explanation: A LOAD or REORG utility detected an index that was potentially in a physically inconsistent state, which prohibited the LOAD or REORG utility from completing its processing for that index.

System Action: The utility job is abended. No SYSABEND dump or SVC dump is requested.

User Response: If the abend occurred during REORG utility processing, all indexes that were not built must be rebuilt using the DB2 Rebuild Index utility. To determine which indexes did not complete processing, use the DB2 -DISPLAY DATABASE command with the SPACENAM and RESTRICT options. Indexes that have not completed processing are in a 'RBDP' (rebuild pending) or 'PSRBD' (page set rebuild pending) state. Terminate the failed REORG utility using the DB2 -TERM UTIL command. Submit a job to rebuild the inconsistent indexes using the DB2 REBUILD or RECOVER Index utility.

If the abend occurred during LOAD utility processing, the data might need to be rebuilt if one or more of the indexes not built is unique. In that case, rebuilding the indexes without first rebuilding the data could cause error messages for duplicate keys to be issued during the REBUILD utility processing.

Problem Determination: Message DSNU548I is issued before this abend and specifies which index was in a 'PSRDB' (page set rebuild pending) state. The LOAD or REORG utility could not process an index in such a state and abnormally terminated. 'PSRDB' is set for secondary indexes of a partitioned table space and indicates that the index might be physically inconsistent. This occurs when a DB2 utility physically alters such an index during utility processing (that is, during the build process for that index). If the utility is unable to complete that process, the index is left in the 'PSRDB' state and must be rebuilt before DB2 can use it.

00E4030E

Explanation: In REORG with SHRLEVEL CHANGE, during processing of the log, a log record is inconsistent with the table that maps between old and new RIDs. Specifically, one of these is true:

- The log record implies that before an update, the data record was a pointer data record, but the mapping table implies that the data record was a regular or overflow data record.

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- The log record implies that before an update, the data record was a regular or overflow data record, but the mapping table implies that the data record was a pointer data record.

This abend reason code is issued by the following CSECT: DSNURLXL

System Action: The utility job step that caused the function to be requested abends. The utility job is placed in the stopped state.

System Programmer Response: This is an internal error. Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, either 2 or 4 (depending on whether the ABEND is issued from DSNUTILA or DSNUTILB), 5, 32, 37, 47, 50, 64, 66, 72, 86, 87.

00E4030F

Explanation: After the last iteration of log processing, one or more index keys in the shadow copy are not unique.

REORG with SHRLEVEL CHANGE operates as follows:

1. Unloads data from the original copy of the area (table space or partition) being reorganized
2. Reloads into a shadow copy of that area
3. Iteratively applies the log (which records applications' writing of the original copy) to the shadow copy so that the shadow copy and the original copy contain the same data

If the table space has any unique indexes, those indexes will enforce uniqueness of the relevant index keys in the original copy. Those index keys should also be unique in the shadow copy.

This abend reason code is issued by the following CSECT: DSNURLOG.

System Action: The utility job step that caused the function to be requested abends. The utility job is placed in the stopped state.

System Programmer Response: This is an internal error. Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, either 2 or 4 (depending on whether the ABEND is issued from DSNUTILA or DSNUTILB), 5, 32, 37, 47, 50, 64, 66, 72, 86, 87.

00E40310

Explanation: An error occurred during the restart of a LOAD or REORG utility execution. An appropriate error message is issued.

This abend reason code is issued by the following CSECTs: DSNURELD, DSNURULD

System Action: The utility is abended.

User Response: Respond to the error message issued prior to the abend by making the correction in the input as indicated. Then restart the LOAD or REORG utility execution.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40311

Explanation: An error occurred during commit processing.

This abend reason code is issued by the following CSECTs:

DSNUK001 DSNUPREC DSNUPTSS DSNURELD
DSNURENF DSNURULD DSNURWBF

System Action: The utility is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40312

Explanation: An error occurred during abort processing.

This abend reason code is issued by the following CSECTs: DSNURELD DSNURULD

System Action: The utility is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40313

Explanation: An error occurred while the first or next key entry was being retrieved from an index.

This abend reason code is issued by the following CSECTs:

DSNUKGET DSNURBXC DSNURCRI DSNURFBI
DSNURLAP DSNURLXL

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40314

Explanation: An error occurred while repositioning the cursor block (CUB) to the last index entry that was retrieved.

This abend reason code is issued by the following CSECT: DSNURFBI

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40315

Explanation: An error occurred while repositioning the main cursor block (CUB). The error occurred at the location defined by the record identifier (RID) of the last table space record that was retrieved.

This abend reason code is issued by the following CSECT: DSNURFBR

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40316

Explanation: An error occurred while the first or next record entry was being retrieved from a table space.

This abend reason code is issued by the following CSECTs:

DSNURFBR DSNURWES DSNUKICK DSNUCRUL

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40317

Explanation: An object descriptor block (OBD) could not be found for the OBID associated with the object descriptor.

This abend reason code is issued by the following CSECTs: DSNURLXL, DSNUnnnn

'nnnn' is the CSECT name identifier given in VRARRK5 of the VRA in the SDWA. DSNUnnnn is the full CSECT name given in the dump title.

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in

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Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40318

Explanation: An error occurred while preparing for or ending a series of data record loads or while attempting a data record load.

This abend reason code is issued by the following CSECTS: DSNURWBF, DSNUGTER

System Action: The utility job is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40319

Explanation: An error occurred while retrieving information from the SYSIBM.SYSTABLES catalog table.

This abend reason code is issued by the following CSECT: DSNURWIR

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4031A

Explanation: One or more broken pages were detected in the shadow data set while copying pages for the inline copy during REORG TABLESPACE SHRLEVEL(CHANGE). Message DSNU518I in the job output identifies each broken page.

This abend reason code is issued by the following CSECTS: DSNURCCP

System Action: The utility job is abended. An SDUMP of the ssnDBM1 address space is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Section 3 of *Diagnosis*

Guide and Reference for information on identifying and reporting the problem.

Problem Determination: This is an internal error. Collect the following diagnostic items listed in Appendix B, "Problem Determination" on page X-5: 1, 2, 5, 32,, 37, 47, 50, 64, 66, 72, 86, 87.

00E4031B

Explanation: For the area (table space or partition) being reorganized, REORG with SHRLEVEL REFERENCE or CHANGE unloads data from the original data sets and reloads data into shadow data sets. REORG then exchanges the names of the original and shadow data sets, using temporary names during the renaming. The original name of a data set is in the form "catname.DSNDBx.dbname.pname.I0001.Annn". The shadow name of a data set is in the form "catname.DSNDBx.dbname.pname.S0001.Annn". The temporary name of a data set is in the form "catname.DSNDBx.dbname.pname.T0001.Annn". REORG uses such data sets for indexes as well as data.

To exchange the names of the original and shadow data sets, REORG performs the following renaming:

- 1 In the switch phase, it renames the original data set from the original name to the temporary name
- 2 In the switch phase, it renames the shadow data set from the shadow name to the original name
- 3 In the utilterm phase, it renames the original data set from the temporary name to the shadow name (for user-managed data sets). It deletes the temporary for DB2-managed data sets.

This abend code means that during the switch phase of REORG, one of these errors was detected:

- 1 On rename 1, a data set with a temporary name already exists.
- 2 On rename 2, a data set with an original name already exists.

These error conditions can arise for a DB2-managed or user-managed data set.

Message DSNU360I also appears, with the name of the data set and with a context code of 1, or 2.

This abend reason code is issued by the following CSECT: DSNURRNM.

System Action: The utility job step that caused the function to be requested abends. The utility job is placed in the stopped state.

User Response: Take one of the following actions:

- Delete the data set and then restart the utility.
- TERM the utility. Delete the data set before trying to execute REORG again with SHRLEVEL REFERENCE or CHANGE.

00E4031C

Explanation: For the area (table space or partition) being reorganized, REORG with SHRLEVEL REFERENCE or CHANGE unloads data from the original data sets and reloads data into shadow data sets. REORG then exchanges the names of the original and shadow data sets, using temporary names during the renaming. The original name of a data set is in the form "catname.DSNDBx.dbname.psname.I0001.Annn". The shadow name of a data set is in the form "catname.DSNDBx.dbname.psname.S0001.Annn". The temporary name of a data set is in the form "catname.DSNDBx.dbname.psname.T0001.Annn". REORG uses such data sets for indexes as well as data.

To exchange the names of the original and shadow data sets, REORG performs the following renaming:

- 1 In the switch phase, it renames the original data set from the original name to the temporary name
- 2 In the switch phase, it renames the shadow data set from the shadow name to the original name
- 3 In the utilterm phase, it renames the original data set from the temporary name to the shadow name (for user-managed data sets). It deletes the temporary for DB2-managed data sets.

If a -TERM UTILITY is issued after any renaming, the -TERM UTILITY undoes the renaming that the REORG performed by renaming:

- 4 The original data set from the shadow name to the temporary name
- 5 The shadow data set from the original name to the shadow name
- 6 The original data set from the temporary name to the original name

During REORG, or during -TERM UTILITY, an attempt to rename a data set failed due to a system problem. This error condition can arise for a DB2-managed or user-managed data set.

Message DSNP0271 also appears, with the old and new names of the data set and with other information.

This abend reason code is issued by the following CSECT: DSNURRNM.

System Action: The job step that caused the function

to be requested abends. The utility job or the -TERM UTILITY command is placed in the stopped state.

User Response: If this condition arises during renaming 1, 2, or 3, and you can correct the problem. Choose between these actions:

- Correct the problem and then RESTART the utility.
- TERM the utility.

If this condition arises during renaming 1, 2, or 3, and you cannot correct the problem, TERM the utility and notify the system programmer.

If this condition arises during renaming 4, 5, or 6, notify the system programmer.

System Programmer Response: This is an internal error. Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 4, 5, 10, 12, 32. Also, collect the information that appears with message DSNP0271.

00E40320

Explanation: A failure occurred while attempting to restart the RELOAD phase of the LOAD or REORG utility.

This abend reason code is issued by the following CSECT: DSNURWUC

System Action: The utility job is abended. A SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40321

Explanation: An error occurred while retrieving information from the SYSIBM.SYSCOLUMNS catalog table.

This abend reason code is issued by the following CSECTS:

DSNUKINE DSNUROFL DSNUCBRK

System Action: The utility job is abended. A

00E40322 • 00E40325

SYSABEND dump of batch storage is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40322

Explanation: An error occurred while attempting to add an entry to an index.

This abend reason code is issued by the following CSECT: DSNURBXA

System Action: Processing of the index for which the error occurred is terminated. The index is internally identified as an unavailable resource. A utility error message identifies the index for which the error occurred. An SVC dump of the database services storage is requested but will be suppressed if a previous 'resource unavailable' message has been issued to document the condition. The processing of index entries for other indexes proceeds.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40323

Explanation: An error occurred during the execution of a LOAD or REORG utility. Prior to this abend, error messages identifying the specific problem were issued. The abend is issued so that work data sets, which will be needed if the utility is restarted, are saved.

This abend reason code is issued by the following CSECTs:

DSNURELD DSNURWBF DSNURBXD DSNURVIX
DSNURENF

System Action: Utility processing is abended. No SYSABEND dump or SVC dump is requested.

User Response: Respond to the error messages issued prior to the abend. Correct the input and either -TERM the utility and resubmit it or resubmit the utility

with the RESTART parameter. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: When work data sets are used and the disposition is MOD, DELETE, and CATLG, (DISP=(MOD,DELETE,CATLG)), this abend still allows you to restart the utility. Refer to the prior error messages to determine how to correct the problem.

00E40324

Explanation: An error occurred during the construction of an index entry. The error occurred while extracting the key from the table space.

This abend reason code is issued by the following CSECT: DSNURBXB

System Action: The utility job is abended. A SYSABEND dump of batch storage and an SVC dump of the database services storage are requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 60, 61.

00E40325

Explanation: An error occurred during the construction of an index. The error occurred while loading the index entries into the index page set.

This abend reason code is issued by the following CSECT: DSNURBXB

System Action: The utility job is abended. A SYSABEND dump of batch storage and an SVC dump of the database services storage are requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 60, 61.

00E40326

Explanation: An error occurred during the construction of an index. The error occurred during sort.

This abend reason code is issued by the following CSECT: DSNURBxB

System Action: The utility job is abended. A SYSABEND dump of batch storage and an SVC dump of the database services storage are requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 60, 61.

00E40333

Explanation: An error occurred while attempting a forced write of RELOAD phase data buffers.

This abend reason code is issued by the following CSECT: DSNURFIS

System Action: RELOAD phase processing is terminated. An SDUMP of the *ssnmDBM1* address space is requested.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40334

Explanation: LOAD or REORG utility processing was attempting to retrieve COLUMN information from the SYSIBM.SYSFIELDS catalog table when an error was detected.

This abend reason code is issued by the following CSECTS: DSNURFIT, DSNURWIS, DSNUBACI, DSNUBAFI

System Action: Utility processing is abended. An SDUMP is requested unless this abend is accompanied by a DSNT500I message written to the SYSPRINT data set.

User Response: Notify the system programmer.

System Programmer Response: Correct the indicated error, if possible, and resubmit the terminated utility job with the RESTART parameter. If the problem can not be corrected, and if you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If this abend is due to an unavailable resource, message DSNT500I provides sufficient problem determination and correction information. Register 2 contains a secondary reason code that might provide additional information.

00E40335

Explanation: An error has been detected while attempting to read a row from the SYSIBM.SYSRELS table.

This abend reason code is issued by the following CSECT: DSNUGRLN

System Action: The utility job is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 32, 60, 61.

00E40336

Explanation: LOAD or REORG utility used the DSNXIFPS protocol to invoke a field procedure for encode or decode and an error code was returned that indicates a DB2 internal error.

This abend reason code is issued by the following CSECTS: DSNURFBR, DSNURWBG

System Action: Utility processing is abended. An SDUMP is requested.

User Response: Notify the system programmer.

Problem Determination: This is an internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40340

Explanation: The LOAD or REPAIR utility used the DSNXVCCR protocol to invoke a conversion routine for a date/time data type. An error code was returned that indicates a DB2 internal error.

This abend reason code is issued by the following CSECTS:

DSNURWBG DSNURWUT DSNUCBRK

System Action: The utility job is abended. An SDUMP of the *ssnmDBM1* address space is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40341

Explanation: A failure occurred during reset processing for a LOAD REPLACE or LOAD PART REPLACE utility.

System Action: The utility job is abended. An SDUMP of the *ssnmDBM1* address space is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40343

Explanation: The LOAD or REORG utility used the DSNJCKLO protocol to obtain the current log RBA. An error code was returned that indicates a DB2 internal error.

System Action: The utility job is abended. An SDUMP of the *ssnmDBM1* address space is requested.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40345

Explanation: The subtask performing an MVS sort terminated abnormally.

This abend reason code is issued by the following CSECTs: DSNUREKY, DSNURELD, DSNURBXD

System Action: Any error message generated by sort in conjunction with the abend is directed to the device/data set identified by the UTPRINT DD

statement in the utility job step.

User Response: Determine the cause of the error. If the error can be corrected, the utility can be restarted from the beginning of the reload phase by using the 'RESTART(PHASE)' parameter. If the error prevents the utility from completing, the -TERM command should be issued to remove the stopped utility from the system.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

Problem Determination: This error can be caused by abend 00E40005 and error message DSNU044I issued from the subtask. If this is the case, correct the error causing the subtask to abend. In most cases, the error messages from SORT that are sent to the device/data set identified by the UTPRINT DD statement identify the problem. The dump might not be needed. If SORT is unable to open the UTPRINT data set, only the message and abend are provided. In this case, correct the problem associated with the UTPRINT DD statement, and restart the job with the RESTART(PHASE) option.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40346

Explanation: The LOAD or REORG subtask creating a COPY data set terminated abnormally.

System Action: Any error message generated by the subtask in conjunction with the abend is directed to the device and data set identified by the SYSPRINT DD statement in the utility job step.

User Response: Determine the cause of the error. If you can correct the error, restart the utility from the beginning of the reload phase by using the 'RESTART(PHASE)' parameter. If the error prevents the utility from completing, issue the -TERM command to remove the stopped utility from the system.

Operator Response: An operator with SYSOPR authority can issue the -TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

Problem Determination: This error can be caused by out of space situations on the data sets identified by the COPYDDN and RECOVERYDDN keywords. If this is the case, correct the data set allocations and restart the job with the RESTART(PHASE) option.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60,

00E40347

Explanation: This utility's main task is abending because one of its subtasks terminated abnormally. The subtask itself issues an abend before this one is issued.

System Action: Any error message generated by the subtask in conjunction with the abend is directed to the device and data set identified by the SYSPRINT DD statement in the utility job step.

User Response: Determine the cause of the error in the subtask. If you can correct the error, restart the utility from the beginning of the phase by using the 'RESTART(PHASE)' parameter. If the error prevents the utility from completing, issue the TERM UTILITY command to remove the stopped utility from the system.

Operator Response: An operator with SYSOPR authority can issue the TERM UTILITY command to release the resources claimed by the stopped utility (this might not be necessary).

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60.

00E40350

Explanation: An error has been returned from LOB MANAGER insert.

System Action: Utilities processing is abended.

User Response: Register 2 contains a secondary DB2 reason code that will give more information about the problem. Notify the system programmer.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 4, 5, 32, 46.

00E40351

Explanation: LOAD RESUME YES for a table space containing a table with CLOB, BLOB or DBCLOB columns cannot be restarted in the RELOAD phase with the "RESTART(PHASE)" parameter.

System Action: Utilities processing is abended.

User Response: The utility can be restarted or terminated:

- To restart the utility, specify the "RESTART" parameter to restart at the last commit point.
- To terminate, use the -TERM command to terminate the utility, then run the CHECK LOB utility to identify any LOBs in the LOB table space that are not associated with a row in the base table.

00E40353

Explanation: An error was detected while reorganizing a LOB table space.

This abend reason code is issued by the following CSECTS: DSNURLOB

System Action: Utilities processing is abended.

User Response: Register 2 contains a secondary DB2 reason code that will give more information about the problem. Notify the system programmer.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in: 1, 2, 4, 5, 32, 46.

00E40355

Explanation: An error was detected while unloading or reorganizing a table space. A security label column was found to be in error.

System Action: Utilities processing is abended.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

User Response: Register 2 contains a secondary DB2 reason code that will give more information about the problem. Notify the system programmer.

00E40401

Explanation: An error has been detected while scanning for a specified key in REPAIR by KEY processing.

This abend reason code is issued by the following CSECT: DSNUCBRP

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40403

Explanation: An error has been detected while scanning for the requested RECORD during REPAIR by record processing.

This abend reason code is issued by the following CSECT: DSNUCBRP

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System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40404

Explanation: An error has been returned from the get-page function, DSNBGETP.

This abend reason code is issued by the following CSECT: DSNUCBRP

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40405

Explanation: An error has been returned from the open-piece function, DSNBOPPP.

This abend reason code is issued by the following CSECT: DSNUCBRP

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40406

Explanation: An error has been returned from the replace-page function, DSNBRELP.

This abend reason code is issued by the following CSECT: DSNUCBRP

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40410

Explanation: The data manager protocol DSNISETR returned an error.

This abend reason code is issued by the following CSECTS: DSNUCDEL, DSNURLAP

System Action: Utilities processing is abended.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

00E40411

Explanation: An error has been returned from a DSNIDLET protocol during REPAIR DELETE processing.

This abend reason code is issued by the following CSECT: DSNUCDEL

System Action: Utilities processing is abended.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

00E40413

Explanation: An error has been detected by the REPAIR utility. Specifically, the DSNINOTC protocol has returned an error.

This abend reason code is issued by the following CSECTS:

DSNUCBRP DSNUCBRR DSNUCDEL

System Action: The utility job step is placed in the stopped state.

Problem Determination: This abend code may be accompanied by a DSNT500 error message that may indicate a correctable problem. If the DSNT500

message has not been issued or if the problem can not be corrected, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40414

Explanation: An error was detected while trying to determine the highest member ID in the data sharing environment. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNUPREC, DSNUCALA, DSNUAHR2.

System Action: Utilities processing is abended.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40415

Explanation: An error was detected while trying to determine the member name for the data sharing member ID. This is an internal error.

This abend reason code is issued by the following CSECTs: DSNUPREC, DSNUPLGR, DSNUCALA

System Action: Utilities processing is abended.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E40500

Explanation: An error was returned by the reset function, DSNPRSPS or DSNPREST.

This abend reason code is issued by the following CSECT: DSNUGTER

System Action: Utilities processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This abend might be accompanied by one or more DSN messages to the operator's console. The DSN messages might indicate a user error that can be corrected. If DSN messages do not accompany this message, the likely cause of the abend is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E40600

Explanation: There was a utility abend on the batch side of DB2. This abend can be issued by either the CATMAINT or the REPAIR DBD utility. The utility terminates and all work up to the time of abend is backed out.

This abend reason code is issued by the following CSECTs:

DSNUECML DSNUECMU DSNUECM0 DSNUECM1
DSNUXDB DSNUEXDL DSNUEXLO DSNUEXUN
DSNUEXUP

System Action: The execution unit driving this function proceeds normally. A user dump is requested.

Operator Response: Notify the system programmer, request the user dump, and print the SYS1.LOGREC, and the BSDS.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: SYSOUT might contain the record being processed at the time of abnormal termination.

The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
2	Address of the error message
5	Address of the load table

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 61.

00E40601

Explanation: There was a utility abend in the DB2 database services address space (*ssnmDBM1*).

This abend can be issued by either the CATMAINT or the REPAIR DBD utility. The utility terminates and all work up to the time of abend is backed out.

This abend reason code is issued by the following CSECTs:

DSNUECMI DSNUECM2 DSNUEXDL

System Action: The execution unit driving this function proceeds normally.

Operator Response: Notify the system programmer, request the SVC dump, and print the SYS1.LOGREC, and the BSDS.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

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and *Reference* for information on identifying and reporting the problem.

Problem Determination: The following general purpose registers (GPRs) contain the indicated diagnostic information:

GPR	Content
2	Address of the error message
7	Address of CT

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5

00E40609

Explanation: A DBD was encountered which is noncontiguous in the EDM pool due to prior operations and the DBD is currently accessed by users. The utility requires the DBD to be contiguous in the EDM pool.

This abend reason code is issued by the following CSECT: DSNUECFMI

System Action: The utility that detected this condition returns "RESOURCE NOT AVAILABLE" to its invoker.

User Response: Allow all SQL access to this database to cease; this will allow the DBD to be flushed from the EDM pool. After all users have finished accessing the database, invoke the utility again. A contiguous DBD will be brought into the EDM pool.

00E40702

Explanation: An error has been detected by CHECK DATA utility during table scanning processing. The data manager protocol DSNISRCF has returned an error.

This abend reason code is issued by the following CSECT: DSNUKSCT

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E40703

Explanation: An error has been detected by CHECK DATA utility during table scanning processing. The data manager protocol DSNINXTR has returned an error.

This abend code is issued by the following CSECT: DSNUKSCT

System Action: Utility processing is abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E40704

Explanation: The CHECK DATA utility detected an error during table scanning processing or delete processing. The data manager protocol DSNISETR returned an error.

This abend reason code is issued by the following CSECTS:

DSNUKSCT DSNUKRDN DSNUKRDY

System Action: Utility processing abends.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E40705

Explanation: The data manager protocol DSNIEXTK returned an error.

This abend reason code is issued by the following CSECTS: DSNUKSCT, DSNUKICK, DSNURLXL

System Action: Utility processing abends.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E40706

Explanation: The CHECK DATA utility detected an error while processing primary keys matching. The data manager protocol DSNKSET returned an error.

This abend reason code is issued by the following CSECTs: DSNUKIFK, DSNUKNFK

System Action: Utility processing abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E40707

Explanation: The CHECK DATA utility detected an error while processing primary keys matching. The data manager protocol DSNKNEX returned an error.

This abend reason code is issued by the following CSECT: DSNUKIFK

System Action: Utility processing abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E40708

Explanation: The CHECK DATA utility detected an error while positioning records for cascade delete processing. The data manager protocol DSNISSETD returned an error.

This abend reason code is issued by the following CSECT: DSNUKRDY

System Action: Utility processing abended.

User Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E40709

Explanation: An error has been detected by the CHECK DATA utility during positioning of records for cascade delete processing. The data manager protocol DSNINEXD has returned an error.

This abend reason code is issued by the following CSECT: DSNUKRDY

System Action: Utilities processing is abended.

User Response: Correct the error condition identified by the DSNT500I message, terminate the utility and restart it from the beginning.

Operator Response: Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E4070A

Explanation: The CHECK DATA utility detected an error during insert records processing. The data manager protocol DSNISRT returned an error.

This abend reason code is issued by the following CSECTs: DSNUKRDN DSNUKRDY

System Action: Utility processing abended.

User Response: Review the definition of the exception tables involved to determine if the following conditions are causing the error:

- The exception table has referential constraints.
- The exception table has unique indexes.
- The exception table "table-name2" is identical with "table-name1" in the FOR EXCEPTION keyword.

If none of these is the cause, notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If the errors listed in the User Response section are not the cause, this is an internal error.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 5.

00E4070D

Explanation: An error was detected while attempting to update the EPOCH column of SYSIBM.SYSTABLEPART table.

This abend reason code is issued by the following CSECT: DSNUGUEN

System Action: Utilities processing is abended. The abend might be accompanied by message DSNT500I. An SDUMP might be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message. Either restart the utility from the last commit point or terminate the utility and start it again from the beginning. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that gives more information about the problem. If the secondary reason code is not documented in this manual, it is an internal IBM code.

Problem Determination: If the condition cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4070F

Explanation: An error was detected during the execution of a restarted utility. A message is issued prior to this abend code to indicate the type of error.

This abend reason code is issued by the following CSECT: DSNUK001

System Action: Utility processing is abended.

User Response: Check messages issued prior to this abend code to determine the cause of the error. Correct the error, and restart the job.

Problem Determination: This abend is forced to allow restart of the utility when work data sets are used and the disposition is (MOD,DELETE,CATLG).

00E40900

Explanation: The DIAGNOSE utility forced an ABEND. The specified instance of the specified utility TRACEID or message, from the DIAGNOSE ABEND utility input statement, was encountered during utility processing while DIAGNOSE mode was on.

This abend reason code is issued by the following CSECT: DSNUGABN

System Action: The utility is abended as requested.

User Response: Continue with the diagnosis procedure in progress.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The ABEND option of the DIAGNOSE utility was invoked to force an abend on a particular instance of a specified utility TRACEID or message. The instance of that TRACEID or message was encountered during utility processing while DIAGNOSE mode was active and an abend was forced to occur at that point.

00E40901

Explanation: The DIAGNOSE utility failed while attempting to set the batch utility address space nonswappable.

This abend reason code is issued by the following CSECT: DSNUDIAG

System Action: Utility processing is abended.

User Response: Terminate the utility and restart it from the beginning. If the problem persists, wait until fewer applications are running on the system before resubmitting the job.

System Programmer Response: Determine the environment for the SYSEVENT TRANSWAP failure. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The DIAGNOSE utility attempted to set the batch utility address space nonswappable by issuing a SYSEVENT TRANSWAP operation. The operation failed to set the address space nonswappable.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 61.

00E40902

Explanation: A bad parameter has been detected for the DIAGNOSE WAIT function.

This abend reason code is issued by the following CSECT: DSNUDWTC

System Action: Utilities processing is abended. An SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60,

00E40903

Explanation: An error has been detected while creating the service task for the DIAGNOSE WAIT function.

This abend reason code is issued by the following CSECT: DSNUDWTC

System Action: Utilities processing is abended. An SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60,

00E40904

Explanation: An error has been detected during the DIAGNOSE WAIT function.

This abend reason code is issued by the following CSECT: DSNUDWTC

System Action: Utilities processing is abended. An SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60,

00E40905

Explanation: An error has been detected while deleting the service task for the DIAGNOSE WAIT function.

This abend reason code is issued by the following CSECT: DSNUDWTC

System Action: Utilities processing is abended. An SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60,

00E40906

Explanation: An error has been detected while issuing a WTOR message.

This abend reason code is issued by the following CSECT: DSNUDWTC

System Action: Utilities processing is abended. An SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60,

00E40907

Explanation: An error has been detected while attempting to map externals to a specific database descriptor (DBD).

This abend reason code is issued by the following CSECT: DSNUGMAP

System Action: Utilities processing is abended. The abend may be accompanied by message DSNT500I. An SDUMP may be taken.

User Response: Correct the 'resource unavailable' condition identified by the DSNT500I message and either restart the utility from the last commit point or terminate the utility and start it again from the beginning. If DSNT500I was not issued, register 2 contains a secondary DB2 reason code that will give more information about the problem.

Operator Response: Notify the system programmer.

System Programmer Response: If the condition identified cannot be corrected, determine the failing environment. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: See message DSNT500I in this manual. Refer to Table 3 in Appendix B, "Problem determination," on page 1353 for an explanation of

00E41000 • 00E4D5D2

resource type codes. See the secondary reason code from register 2, also in this manual. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60.

00E41000

Explanation: An internal error has occurred. A utility general service was called incorrectly.

This abend reason code is issued by the following CSECTs: DSNUGDYN, DSNUGTDS

System Action: The utility job step is placed in the stopped state.

User Response: The general services DSNUGDYN and DSNUGTDS can be bypassed by not using TEMPLATE dynamic allocation.

Operator Response: None

System Programmer Response: This abend should never occur. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 32, 46, 60, 61.

00E4D5D2

Explanation: This abend is placed at logic points that will occur only through a programming error.

System Action: Utility processing abends. No SYSABEND dump or SVC dump is requested.

User Response: Any 00E4D5D2 is an APARable situation. The abend module and offset will identify the code location in error.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

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00E50001

Explanation: A latch acquisition request violates latch deadlock prevention protocols. If the request was unconditional, the execution unit owns a latch at a level equal to or greater than the level of the requested latch. If the request was conditional, the execution unit already owns a latch at the requested level. This is a DB2 subsystem error.

This abend reason code is issued by the following CSECT: See Problem Determination.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer of the abend.

System Programmer Response: Collect the necessary diagnostic material. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This abend is issued by the in-line expansions of the latch acquisition macros DSNVLTHS and DSNVLTHX.

At the time of the abend, diagnostic information has been placed in general registers 2 through 5.

Register

	Contents
2	Latch class number (1-32).
3	Address of the latch.
4, 5	Latch class name (1 to 8 characters, left-justified).

Registers 2-12 of the invoking module were saved in the save area pointed to by register 13 at the time the error was detected.

It is the responsibility of the requesting resource manager to have functional recovery in place before requesting a latch. It is expected that a record will be written to SYS1.LOGREC and a DB2 SVC dump will be requested. Examine SYS1.LOGREC and, if available, the SVC dump to determine the subcomponent and module requesting the latch.

00E50002

Explanation: A release latch request was issued for a latch not held by the requesting execution unit. This is a DB2 subsystem error.

This abend reason code is issued by the following CSECT: See Problem Determination.

System Action: The requesting execution unit is abended.

System Programmer Response: Collect the necessary diagnostic material. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Operator Response: Notify the system programmer of the abend.

Problem Determination: This abend is issued from within the in-line expansions of the latch release macros DSNVUNLS and DSNVUNLX and from module DSNVXUL0.

At the time of the abend, diagnostic information is placed in general registers 2 through 5.

If the abend is issued from the in-line expansion macros, then the registers are set as follows:

Register

	Contents
2	Latch class number (1-32)
3	Address of the latch
4, 5	Latch class name (1-8 characters, left justified)

If the abend is issued from DSNVXUL0, then the registers are set as follows:

Register

	Contents
2	Latch class number (1-32)
3	Address of the latch
4	Address of the holder of the latch
5	First waiter for the latch

Registers 2-12 of the abending module were saved in the save area pointed to by register 13 at the time the error was detected.

It is the responsibility of the requesting resource manager to have functional recovery in place while holding a latch. A record is written to SYS1.LOGREC, and a DB2 SVC dump is requested. Examine SYS1.LOGREC and, if available, the SVC dump to determine the subcomponent and module requesting the latch.

00E50003

Explanation: An execution unit that is requesting a latch already owns that latch. This is a DB2 subsystem error.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on

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identifying and reporting the problem.

Problem Determination: A record is written to SYS1.LOGREC and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50004

Explanation: An error was found while attempting to resume a waiter after a latch was released. This abend is issued when the next resource options block (ROB) to be resumed is the same as the immediately previous ROB. That is, the ROBCHNA of a ROB points to itself.

This abend reason code is issued by the following CSECT: DSNVXUL0

System Action: The current execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A record is written to SYS1.LOGREC, and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50005

Explanation: A resource options block (ROB) which was to be added to a latch waiter chain was discovered to be on the chain already. The same ROB cannot be on the same latch waiter chain twice. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs:

DSNVSLT0 DSNVSUL0 DSNVXLT0

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register three contains the address of the ROB which would have been added to the latch waiter chain.

A record is written to SYS1.LOGREC and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50006

Explanation: An execution unit which, according to tracking information, is currently suspended on a latch waiter chain issued a request to acquire a latch. A single execution unit cannot be doing both at the same time. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs: DSNVSLT0, DSNVXLT0, and any CSECT that issues the DSNVLTHS or DSNVLTHX latch acquisition macros.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the address of the latch upon which the execution unit is supposedly waiting and general register two contains the address of the resource options block (ROB) which was put on the latch waiter chain.

A record is written to SYS1.LOGREC and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50007

Explanation: An execution unit which, according to tracking information, is currently suspended on a latch waiter chain issued a request to test or to release a latch. A single execution unit cannot be doing both at the same time. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs: DSNVLTT0, DSNVSUL0, DSNVXUL0, and any CSECT that issues the DSNVUNLS or DSNVUNLX latch release macros.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and*

Reference for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the address of the latch upon which the execution unit is supposedly waiting and general register two contains the address of the resource options block (ROB) which was put on the latch waiter chain.

A record is written to SYS1.LOGREC and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50008

Explanation: A latch manager module detected that an execution unit requesting latch manager service pointed to an invalid execution block (EB). This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs:

DSNVLT0 DSNVSLT0 DSNVSUL0 DSNVXLT0
DSNVXUL0

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A record is written to SYS1.LOGREC and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50009

Explanation: A latch manager module detected an invalid resource options block (ROB) while processing a request for service. This is probably a DB2 subsystem error.

This may be either an abend reason code or a DB2 subsystem termination code.

This reason code is issued by the following CSECTs:

DSNVLFRR DSNVLT0 DSNVSLT0 DSNVSUL0
DSNVXLT0 DSNVXUL0

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A record is written to SYS1.LOGREC and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50012

Explanation: A caller in TCB mode requested the SRB redispach function. SRB redispach can only be requested by SRB-mode callers. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSNVSDC0

System Action: The requesting task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic material. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine in DSNVSDC0 creates diagnostic material, an entry in SYS1.LOGREC and a DB2 SVC dump is requested. These must be examined to determine the task and resource manager which made the illegal request.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50013

Explanation: A DB2 execution unit has been abended. This abend code must ultimately be issued by resource managers when the CANCEL exit is driven as a result of a suspend request.

This abend reason code is issued by the following CSECTs:

DSNVEUS1 DSNVEUS3 DSNVASTM DSNVCST0
DSNVDST0 DSNVFEB DSNVSLT0 DSNVSUL0
DSNVXLT0

System Action: The agent cancel processing continues.

Operator Response: Notify the system programmer only if the abend results in the termination of the DB2 subsystem.

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System Programmer Response: This reason code may be issued as a result of any connected TCB abend, or operator -STOP DB2 MODE(FORCE) command. No further action is required.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If DB2 abends, examine the SVC dump to determine the suspended resource manager and the state of the failing subcomponent. For example, the ACEMC (must complete) bit should be off.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50014

Explanation: Either the execution block (EB) or the agent services global communication area (VGCA) was invalid. The error was detected when the agent services resume function attempted to resume a TCB in an address space other than the primary of the resume requester. This is a subsystem error.

This abend reason code is issued by the following CSECT: DSNVRSRB

System Action: The error is percolated (passed) to the recovery routine for the TCB that was to have been resumed.

Operator Response: Notify the system programmer.

System Programmer Response: The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An entry is written to SYS1.LOGREC, and a DB2 dump is requested by the FRR DSNVSRR. Examine the SVC dump and determine the resource manager module requesting the resume operation. Register 3 contains the SRB address. Register 5 contains the EB address. If the VGCA is invalid, its address is in register 8. The EB in question is that of the target TCB.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50015

Explanation: The MVS control block (either RB or STSV - SRB Status Save Area) that was the intended object of a resume request was invalid. The RB or STSV address was obtained from the DB2 EB

(execution block) at offset X'1C' This is a subsystem error.

This abend reason code is issued by the following CSECTS:

DSNVSR DSNVRSRB DSNVSDC0

System Action: If the CSECT that abends is DSNVRSRB, the error is percolated (passed) to the recovery routine for the TCB that was to have been resumed. If the CSECT that abends is DSNVSR, the error is percolated to the DB2 SRB recovery task DSNVRCT. Ultimately, the subsystem may be terminated abnormally. If the CSECT that abends is DSNVSDC0, the error will be retried one time and, if unsuccessful, the DB2 subsystem is terminated with a 00E50054 reason code.

Operator Response: Notify the system programmer.

System Programmer Response: The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry and a DB2 SVC dump are requested by the FRR DSNVSRR and by the recovery routine in DSNVSDC0. Register 6 contains the target EB address.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E5001A

Explanation: A CANCEL THREAD command caused the thread to be terminated. A dump is provided for diagnostic purposes as a result of the CANCEL command DUMP keyword.

System Action: DB2 writes a SYS1.LOGREC record and requests an SVC dump. The execution unit abends.

Operator Response: Notify the system programmer.

System Programmer Response: The command might have been used to terminate a thread that was in a state where no processing was occurring and the thread could not continue.

If you suspect an internal DB2 error, obtain a copy of the SYS1.LOGREC listing and the SVC dump. Determine the failing environment (DB2, IMS, CICS, or TSO).

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353 1, 2, 5.

The module that was suspended while waiting for some action to be taken is the module that issued the abend.

00E50029

Explanation: The Agent Services function which establishes the DB2 tasking structure abends with this reason code following the detection of a load module which was loaded without the 31-bit addressing capability. The abend is preceded by message DSNV029.

This abend reason code is issued by the following CSECT: DSNVASIM

System Action: Subsystem start-up is terminated.

System Programmer Response: See message DSNV029I.

00E50030

Explanation: A request was made to initialize an already-initialized DB2 address space. This is a subsystem error.

This abend reason code is issued by the following CSECT: DSNVASIM

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Examine the SVC dump and determine the resource manager module (contents of register 14 in save area pointed to by register 13) that invoked DSNVASIM. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A record is written to SYS1.LOGREC, and an SVC dump is requested. Register 6 contains the address of the EB. Field EBPASCE contains the ASCE address of the address space to be initialized.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50031

Explanation: An agent termination request was issued from a secondary execution unit for an agent created with APLOPT=1. This is an invalid use of the terminate allied agent function.

This abend reason code is issued by the following CSECT: DSNVTRTH

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Determine the resource manager module that invoked DSNVTRTH. Register 14, in the save area pointed to by register 13, contains the return address of the invoking module. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: A record is written to SYS1.LOGREC, and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50032

Explanation: An agent services manager functional request was issued with an invalid specification of the ACE operand. This is an invalid use of the requested service.

This abend reason code is issued by the following CSECTS:

DSNVTRTH	DSNVDISC	DSNVCONN
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System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Verify that the ACE control block is a valid allied agent. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A record is written to SYS1.LOGREC, and an SVC dump is requested. Register 1 at entry to the module normally contains the ACE address. However, if register 1 at entry to DSNVTRTH is zero, then the address at register 6 is the ACE address to be terminated. That address points to the EBROB which, in turn, points to the ROBACE.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50033

Explanation: A conversion error occurred during the start of DB2. This conversion is used to determine if conversion services are set up correctly.

System Action: DB2 is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: See message DSNT552I to resolve the problem.

00E50035

Explanation: During the processing of a request to perform system agent allocation, a resource manager returned a nonzero return code from an allocation notification. This is a subsystem error.

This abend reason code is issued by the following CSECT: DSNVIALC

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The error is recorded on SYS1.LOGREC, and an SVC dump is requested. Register 7 contains the nonzero allocation return code.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50036

Explanation: A request was made to perform system agent allocation for an agent that had already been allocated.

This abend reason code is issued by the following CSECT: DSNVIALC

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The error is recorded on SYS1.LOGREC, and an SVC dump is requested. The fullword address at register 6, which points to the EBROB, should have been zero. That address points to the ROBACE which, in turn, points to the ACERAL.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50040

Explanation: DB2 subsystem termination was invoked following an unrecoverable error while processing a terminate allied agent request at the thread, sign on, or identify level. The FRR (DSNVTFR) covering module DSNVTRTH was unable to recover. This is a subsystem termination reason code.

This reason code is issued by the following CSECT: DSNVTFR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the system termination message DSNV086E. Follow the failure analysis procedures for the specific abend(s). Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50041

Explanation: DB2 subsystem termination was invoked following an unrecoverable error while processing a terminate agent structure request. The FRR (DSNVTFR) covering module DSNVFACE was unable to recover. This is a subsystem termination reason code.

This abend reason code is issued by the following CSECT: DSNVTFR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the system termination message DSNV086E. Follow the failure analysis procedures for the specific abend(s). Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351

page 1349 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50042

Explanation: An execution unit which, according to tracking information, is currently suspended on a latch waiter chain is in the agent termination process. This may indicate that a latch manager request is still incomplete or has not been serviced properly. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs: DSNVFACE, DSNVTEB

System Action: The current execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the address of the latch upon which the execution unit is supposedly waiting and general register two contains the address of the resource options block (ROB) which was put on the latch waiter chain.

A record is written to SYS1.LOGREC and a DB2 SVC dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50044

Explanation: A terminate agent request was issued for an agent with an active unit of recovery (URE). This is an invalid use of the terminate allied agent service and is a subsystem error.

This abend reason code is issued by the following CSECT: DSNVTRTH

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The error is recorded on SYS1.LOGREC, and an SVC dump is requested. Register 1 at entry to the module contains the ACE address of the agent to be terminated. The ACEURE field should have been zero.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50045

Explanation: DB2 subsystem termination was invoked following an unrecoverable error while processing a create allied agent service request at the thread, sign on, or identify level. The FRR (DSNVCFFR) covering module DSNVCRTH was unable to recover. This is a subsystem termination reason code.

This reason code is issued by the following CSECT: DSNVCFFR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the system termination message DSNV086E. Follow the failure analysis procedures for the specific abend(s). Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50046

Explanation: DB2 subsystem termination was invoked following an unrecoverable error while processing a create agent structure request. The FRR (DSNVCFFR) covering module DSNVGACE was unable to recover. This is a subsystem termination reason code.

This reason code is issued by the following CSECT: DSNVCFFR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the system termination message DSNV086E. Follow the failure analysis procedures for the specific abend(s). Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50047

Explanation: DB2 subsystem termination was invoked following an unrecoverable error while processing a Format EB RMRQ request. The FRR (DSNVCFRR) covering module DSNVFEB was unable to recover. This is a subsystem termination reason code.

This reason code is issued by the following CSECT: DSNVCFRR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the system termination message DSNV086E. Follow the failure analysis procedures for the specific abend(s). Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50050

Explanation: The MVS cross-memory lock (CML) of the system services address space was held by the invoking resource manager execution unit during invocation of the cancel, suspend, resume, or SRB redispach functions. This violates the entry protocols for these functions.

This abend reason code is issued by the following CSECTs: DSNVSR, DSNVSDC0

System Action: The requesting execution unit is abended.

Because resource manager serialization cannot be maintained without the use of this lock, normal recovery is not possible for this abend. The recovery routine

terminates the DB2 subsystem through invocation of the agent services subsystem termination protocol.

An '00E50054' recovery reason code is placed in the SDWACOMU field of the SDWA, indicating that synchronization services was responsible for DB2 subsystem termination.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Internal protocols specify that no MVS locks may be held at DSNVSR or DSNVSDC0 invocation Determine the invoking resource manager, the function requested, and the current owner (ASCB) of the CML lock at the time of the error. Diagnostic information for this error may be obtained through the SYS1.LOGREC and DB2 SVC dump materials provided.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50051

Explanation: The resource manager requesting the resume function specified the TCTL=YES option while executing in TCB mode. This violates the entry protocols for this function. This is a subsystem error.

This abend reason code is issued by the following CSECT: DSNVSR

System Action: Mainline processing is abended with an '04E' abend code and this reason code.

Because this error is an internal resource manager protocol violation, normal recovery is not possible for this abend. The recovery routine terminates the DB2 subsystem through invocation of the agent services subsystem termination protocol. An '00E50054' recovery reason code is placed in the SDWACOMU field of the SDWA indicating that synchronization services was responsible for DB2 subsystem termination.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Internal protocol documentation specifies that the TCTL=YES option is valid only for resource managers executing in SRB mode at time of invocation. Determine the invoking resource manager at time of error. Diagnostic information for this error may be obtained through the

SYS1.LOGREC and DB2 SVC dump materials provided.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50052

Explanation: The MVS cross-memory lock (CML) of the system services address space could not be released during termination processing of the cancel, suspend, resume, or SRB redispach functions.

This abend reason code is issued by the following CSECTs: DSNVSR, DSNVSDCO

System Action: Mainline processing is abended with an '04E' abend code and this reason code.

Because resource manager serialization can no longer be maintained without the use of this lock, normal recovery is not possible for this abend. The recovery routine terminates the DB2 subsystem through invocation of the agent services subsystem termination function.

An '00E50054' recovery reason code is placed in the SDWACOMU field of the SDWA indicating that synchronization services was responsible for DB2 subsystem termination.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For this abend to occur, the CML lock must have been successfully obtained at some point during mainline processing. Determine the invoking resource manager, the function requested, and the current owner (ASCB) of the CML lock at the time of the error. Diagnostic information for this error may be obtained through the SYS1.LOGREC and DB2 SVC dump materials provided.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 7.

00E50054

Explanation: The DB2 subsystem is abended by the synchronization services recovery routine when an unrecoverable error is encountered during recovery processing for the suspend, cancel, resume, or SRB redispach functions. This is a subsystem termination reason code.

This reason code is issued by the following CSECTs: DSNVSRR, DSNVSDCO

System Action: The DB2 subsystem is terminated.

This reason code is associated with an '04F' abend code indicating that synchronization services was responsible for termination.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the system termination message DSNV086E. Follow the failure analysis procedures for the specific abend(s). Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

One of the following conditions was encountered during recovery processing for the requested function:

- Unable to complete resume processing for an SRB mode execution unit that was suspended at time of error.
- Errors were encountered during primary recovery processing causing entry to the secondary recovery routine.
- Recovery initiated retry to mainline Suspend/Resume code caused retry recursion entry into the functional recovery routine.
- Unable to obtain or release the cross-memory lock (CML) of the system services address space either during mainline processing or during functional recovery processing (for example, reason code '00E50051' or '00E50052').
- The invoking resource manager requested the TCTL=YES option of the resume function while executing in TCB mode (for example, reason code '00E50051').

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50055

Explanation: The synchronization services functional recovery routine was unable to successfully complete resume processing for a suspended TCB mode execution unit. The resume processing was requested by the cancel or resume functions. This reason code is placed in the SDWACOMU field of an SDWA.

This reason code is issued by the following CSECT: DSNVSRR

System Action: Because the suspended TCB mode execution unit must not be permitted to remain in a suspended state, the recovery routine invokes the MVS CALLRTM (TYPE=ABTERM) service to abend the execution unit with an '04F' completion code. Depending upon which execution unit was terminated, the DB2

subsystem may be abended.

Operator Response: Notify the system programmer, and restart DB2 if necessary.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Scan the MVS system log and the contents of SYS1.LOGREC for DB2 abends occurring immediately before the abend of the execution unit. Follow the failure analysis procedures for the specific abend(s). Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 7.

00E50059

Explanation: When preparing to resume an SRB, the target EB (execution block) was validated by checking the EB identifier code in the first halfword of the control block. The identifier code was in error.

This abend reason code is issued by the following CSECTs: DSNVSR, DSNVSDC0

System Action: If the CSECT detecting the error is DSNVSR, the error is percolated (passed) to the DB2 SRB recovery task DSNVRCT. Ultimately, DB2 is terminated abnormally.

If the CSECT detecting the error is DSNVSDC0, the code detecting the error will be retried once. If validation fails, the DB2 subsystem is terminated abnormally with a 00E50054 reason code.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: A LOGREC entry and a DB2 dump are requested by the FRR DSNVSRR and by the recovery routine in DSNVSDC0. Register 6 contains the address of the invalid EB.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50062

Explanation: An application request (RARQ) was issued to a resource access list (RAL). At the time of the request, the RAL had the RAL suppress (RALSUPPR) flag on, and the function vector list entry (FVLE) that was accessed (through FRBFVLE) did not have FVLEBIT0 on. This is not allowed. That is, the FVLE function is not allowed during RAL suppress.

This error may indicate that an IMS/VS or CICS caller had completed Commit Phase 1 and that the next request was not Commit Phase 2, Abort, or Terminate with the Commit or Abort option. This abend is the result of an internal system problem, possibly the DB2 attachment facility or the requesting IMS/VS or CICS subsystem.

This abend reason code is issued by the following macro: DSNARARQ

System Action: The allied task requesting the RARQ is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routines of the module invoking the DSNARARQ macro should have requested SYS1.LOGREC recording and either an SVC or application dump (or both.) The FRB contains the FRBRALE and FRBFVLE entries. It also contains the pointers to the RAL and to the execution block address (FRBEB). Register 3 contains the address of the RAL from FRBRAL. Register 4 contains the address of the RALE as located by the FRBRAL pointer (and as indexed by FRBRALE). Register 6 contains the address of the EB from FRBEB.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 22, 23, 24, 25, 26.

00E50063

Explanation: A resource access request (RARQ) was issued to a function vector list entry (FVLE) that is valid but unauthorized for this allied user at this time. This abend occurs if a request is issued out of sequence. For example, two consecutive CREATE THREAD requests would give this result. This abend also occurs if a request is issued that is never authorized for the caller. For example, it occurs if a BATCH protocol user issues a PREPARE request. A program call (PC) is issued to module DSN3ABND, which issues the X'04E' abend with this reason code.

This abend reason code is issued by the following CSECT: DSN3ABND

System Action: The task issuing the RARQ is

abended. However, DB2 recovery may translate this abend to a return code 256 with this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is a user error. The issuer of the RARQ was not authorized to use the requested function at this time. The following diagnostic information is available:

- An entry in the DB2 trace table is made for entry to module DSN3ABND. The items traced are the RALE and the FVLE of the intended DSNARARQ request. To determine the sequence of DSNARARQ requests, examine the previous trace table entries for the same execution block (EB).
- An application dump is requested with DB2-supplied control blocks. This includes the FRB associated with the intended DSNARARQ request. Fields FRBRALE and FRBFVLE contains the indexes for the intended request.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 4, 5.

00E50065

Explanation: RMRQ linkage was requested, specifying a function code that is undefined in the resource manager function table (RMFT) of the designated resource manager.

This abend reason code is issued by the following CSECT: DSNVRMEL

System Action: The execution unit under which RMRQ was requested is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine of the abended resource manager module requested SYS1.LOGREC recording and a DB2 SVC dump. Register 14 points to the resource manager module that requested linkage to the undefined function.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50069

Explanation: This abend code is issued during recovery processing for the suspend function when executing in SRB mode under the recovery routine established by the MVS SRBSTAT(SAVE) service. Because the recovery routine established by this service is the only routine in the FRR stack at the time of error, normal RTM percolation to the invoking resource manager recovery routine is not possible.

After recovery processing for the initial mainline error has successfully completed, the RTM environment is exited through retry to a routine that restores the original FRR stack. This routine then issues an '04E' abend with this reason code. This causes entry into the original recovery routine established during suspend initialization.

This abend reason code is issued by the following CSECTs: DSNVSRR, DSNVSDC0

System Action: After this abend is intercepted by the original suspend recovery routine, a SYS1.LOGREC entry and DB2 SVC dump are requested to document the original error. The original recovery reason code is placed in the SDWACOMU field of the SDWA indicating the actions performed during recovery processing of the initial error. Control is then returned to the invoking resource manager's recovery routine through RTM percolation.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Because this abend is used only to permit the transfer of the initial recovery reason code to the invoking resource manager's recovery routine, no further recovery actions are required for this abend. Diagnostic information for the initial error encountered during mainline processing may be obtained through the SYS1.LOGREC and SVC dump materials provided.

00E50070

Explanation: This abend reason code is issued in response to a delete service task request specifying purge. Additionally, any service task not deleted by the owning resource manager at subsystem shutdown is abended with this reason code.

This abend reason code is issued by the following CSECTs:

DSNVEUS3 DSNVDST0 DSNVEOT1

System Action: This abend usually occurs through MVS CALLRTM and, in certain cases, is issued by the service task dispatcher executing under the TCB being

abended. The service task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: If the service task is abended with a completion code of X'04F', no DB2 SVC dump is taken. Some resource managers have elected to terminate their service tasks with the purge option. Consequently, the abend may or may not be an actual error. At the time of the abend, register 6 points to the execution block (EB) of the execution unit that was active when the abend occurred. The EBSQH field in turn contains a pointer to the service queue header associated with the abending service task.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50071

Explanation: This abend reason code is issued following a cancel return from the resume service during an attempt to notify the create service task requester. Because the requester has been terminated, the newly created service task must be terminated.

This abend reason code is issued by the following CSECT: DSNVEUS3

System Action: The service task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, register 6 points to the execution block (EB) assigned to the service task dispatcher. The EBSQH field, in turn, contains a pointer to the service queue header associated with the abending service task. From the SQH, determine the requesting resource manager. Prior SYS1.LOGREC entries may indicate why the requester was terminated.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50072

Explanation: This abend reason code is issued following an unanticipated cancel return from DSNVSR for an execution unit not expected to be canceled. This code is also a subsystem termination reason code if the abend was issued by module DSNVCST0.

This abend reason code is issued by the following CSECTs:

DSNVEUS3 DSNVEUS4 DSNVCST0 DSNVEOT1

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: At the time of the abend, register 6 points to the execution block (EB) associated with the abending execution unit.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50073

Explanation: Execution unit switch processing detected an invalid execution block (EB) or an invalid resource options block (ROB). This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs:

DSNVEUS2 DSNVEUS3 DSNVTEB

System Action: The current execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the address which should have pointed to a valid control block but did not.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50074

Explanation: This abend reason code is issued in response to a nonzero return code from ATTACH during an attempt to create a service task.

This abend reason code is issued by the following CSECT: DSNVEUS4

System Action: The ATTACH is retried. If a failure occurs again, DB2 is terminated.

Operator Response: Notify the system programmer, and restart DB2 if necessary.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 2, in the SDWA, contains the return code from the ATTACH request.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50075

Explanation: On an execution unit switch request, an invalid service queue header (SQH) and/or service task identifier (STID) was specified. Alternately, the specified or implicit address space may be invalid. This is an internal DB2 protocol error.

This abend reason code is issued by the following CSECT: DSNVEUS1

System Action: The requester is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Using the SYS1.LOGREC entry and the associated SVC dump, determine the resource manager module that requested the execution unit switch.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50076

Explanation: A request was made for an execution unit switch to a service task currently undergoing delete processing. This is an internal DB2 protocol error.

This abend reason code is issued by the following CSECT: DSNVEUS1

System Action: The requester is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Using the SYS1.LOGREC entry and the associated SVC dump, determine the resource manager module that requested the execution unit switch. A resource manager should not request deletion of a service task and then attempt to execute under the same task.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50077

Explanation: A deadlock condition was encountered. A request was made to either delete or synchronously execute a service task already participating in a chain of service tasks leading to the current request. This is an internal subsystem protocol error.

This abend reason code is issued by the following CSECTS: DSNVEUS1, DSNVDST0

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Using the SYS1.LOGREC entry and the associated SVC dump, determine the resource manager module that requested the function. If the recording FRR is EUS1FRRE, then the deadlock was detected by the execution unit switch service. Otherwise, the error was found during a delete service task request.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50078

Explanation: A request was received to create a service task, but the service task controller is terminating. This code is also a subsystem termination reason code if the abend was issued by module DSNVCST0.

This abend reason code is issued by the following CSECT: DSNVCST0

System Action: The requesting execution unit is terminated. The entire subsystem may also be terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Using the SYS1.LOGREC entry and associated SVC dump, determine the resource manager requesting the creation of a service task. DB2 was probably already terminating when this error was encountered. New service tasks cannot be created during subsystem termination.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50079

Explanation: An invalid address space (ASCE) was specified as the target of an execution unit switch request. This can occur if the target is an allied address space or if the address space was concurrently undergoing termination.

This abend code may also be issued when a passed agent services control block is determined to be invalid.

This abend reason code is issued by the following CSECTS:

DSNVEUS1	DSNVSR	DSNVSDC0
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System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Using the SYS1.LOGREC entry and the associated SVC dump, determine the resource manager module that requested the execution unit switch, suspend, resume, cancel, or SRB dispatch function. Using register 6 as a pointer to the execution block (EB), verify that the agent services control blocks — execution block (EB) and resource options block (ROB) — are valid.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50080

Explanation: An execution unit (SRB or TCB) processor determined that the current MVS Functional Recovery Routine (FRR) stack contained one or more entries for FRR's which should not exist. This check is

made at the conclusion of a resource manager function executing under the SRB or TCB.

This error reason code is issued by the following CSECTS: DSNVEUS2, DSNVEUS3.

System Action: An SVC dump is requested specifying an abend code of X'04E' and this reason code. The extraneous FRR entries are deleted from the stack. Execution continues. The application is not notified.

Operator Response: Notify the system programmer of the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: MVS console data is logged and the SVC dump is taken. No record is written to SYS1.LOGREC.

One or more resource manager functions created an FRR which was not deleted. Examine the current FRR stack in the PSA of the active CPU. The only valid stack entries are those established by DB2 and MVS Dump Services and, if DSNVEUS2, an entry established by that module. The format of the FRR stack is provided as data area FRRS in the appropriate MVS debugging guides.

00E50081

Explanation: A TCB execution unit processor determined that the list of active ESTAE exits associated with the TCB contained one or more entries for ESTAEs which should not be active. This check is made at the conclusion of a resource manager function executing under the TCB.

This error reason code is issued by the following CSECT: DSNVEUS3.

System Action: An SVC dump is requested specifying an abend code of X'04E' and this reason code. The extraneous ESTAE entries are deleted. Execution continues. The application is not notified.

Operator Response: Notify the system programmer of the SVC dump.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: MVS console is logged and the SVC dump is taken. No record is written to SYS1.LOGREC.

One or more resource manager functions created an ESTAE exit which was not deleted. Locate the TCB requesting the dump (It will be a DB2 service task in the home address space at the time the dump was requested.) Field TCBSTABB points to a chain of STAE

Control Blocks (SCB) for active exits. The only valid SCBs are for the ESTAE exit established (with a token) by DSNVEUS3 and an ESTAI exit established when the task was created. SCBs are located in LSQA. The SCB format is provided as a data area in the appropriate MVS debugging guides.

00E50094

Explanation: The macro service to get a resource options block (ROB) determined that a ROB taken from the ROB cache was not formatted properly. This can occur if the queue which controls the ROB cache was overlaid, if the ROB itself was overlaid, or if there is a programming error in DB2.

This abend reason code is issued by the following CSECTs: Any CSECT which invokes the get ROB service may use this abend reason code.

System Action: The requesting execution unit is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register zero, which should appear in the SYS1.LOGREC entry for this abend, contains the address which should have pointed to a ROB but apparently did not.

Use the SYS1.LOGREC entry and the associated dump to examine the area which should have been a ROB. It may also be helpful to examine the chain of ROB's in the cache. This chain is anchored in the DB2 DSNVDGCA control block.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50095

Explanation: The macro service to release a resource options block (ROB) determined that a ROB passed to it for release was not formatted properly and did not, in fact, appear to be a ROB at all. This can occur as a result of a storage overlay or if there is a programming error in DB2.

This abend reason code is issued by the following CSECTs: Any CSECT which invokes the release ROB service may use this abend reason code.

System Action: The requesting execution unit is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

and *Reference* for information on identifying and reporting the problem.

Problem Determination: Register zero, which should appear in the SYS1.LOGREC entry for this abend, contains the address which should have pointed to a ROB but apparently did not.

Use the SYS1.LOGREC entry and the associated dump to examine the area which should have been a ROB.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50096

Explanation: A request was made to suspend an execution unit but the resource options block (ROB) which is required for this request is invalid. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs: Any CSECT that requests suspension is subject to this abend since it is issued by the in-line expansion of the macro used to make the request.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the necessary diagnostic materials. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the address which should have pointed to a valid ROB but did not.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50097

Explanation: A request was made to resume an execution unit but the resource options block (ROB) which is required for this request is invalid. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECTs: Any CSECT that requests the resume service is subject to this abend since it is issued by the in-line expansion of the macro used to make the request.

System Action: The requesting execution unit is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the address which should have pointed to a valid ROB but did not.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50098

Explanation: A request was made to resume an execution unit but a non-zero return code was received from the IEAMSCHD service attempting to schedule a client or enclave SRB.

System Action: The requesting execution unit is abended.

User Response: Notify the system programmer and rerun the application.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of the abend, general register zero contains the return code from IEAMSCHD.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNVSR DSNVEUS1

00E50100

Explanation: The ASCE could not be found during recover stack processing. This is an internal subsystem error.

This abend reason code is issued by the following macro: DSNVRSTK

System Action: The requesting recovery routine is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Using register 6 as the address of the execution block (EB), check that field EBPASCE contains a valid ASCE address. Also determine the recovery module invoking the macro from the information provided by the SYS1.LOGREC entry and the associated SVC dump.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50101

Explanation: The agent cancel function was unable to establish an ESTAE while preparing to cancel all active allied agents during processing of the -STOP DB2 MODE(FORCE) command.

This abend reason code is issued by the following CSECT: DSNVAGCL

System Action: The abend is passed on to a subsystem support subcomponent (SSS) ESTAE. Probably, DB2 is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: The inability to establish an ESTAE is normally due to insufficient free space in the local system queue area (LSQA) for an ESTAE control block (SCB). If necessary, increase the size of the system services address space.

Problem Determination: Review the associated SVC dump for usage and free areas in the LSQA subpools belonging to the system services address space.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50102

Explanation: An unrecoverable error occurred while canceling all active agents during processing of the -STOP DB2 MODE(FORCE) command. This is a subsystem termination reason code.

This abend reason code is issued by the following CSECT: DSNVAGCL

System Action: The subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Review the SYS1.LOGREC entries for failures immediately preceding subsystem termination. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50105

Explanation: This is an internal error.

This abend reason code is issued by the following CSECT: DSNVAI

System Action: The caller's task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5. 84.

00E50106

Explanation: This is an internal error.

This abend reason code is issued by the following CSECT: DSNVAI

System Action: The caller's task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5. 84.

00E50107

Explanation: This is an internal error.

This abend reason code is issued by the following CSECT: DSNVAI

System Action: The caller's task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5. 84.

00E50500

Explanation: An MVS LOCAL or CML lock could not be obtained during DB2 subsystem abnormal termination processing.

This abend reason code is issued by the following CSECT: DSNVATRM

System Action: The execution unit is abended. The error is recorded on SYS1.LOGREC, and abnormal DB2

subsystem termination is completed under a different execution unit if possible.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry is requested. Reason code '00E50504' is placed in the SDWA variable recording area (VRA). The VRA data contains information about the status of subsystem termination at the time of error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50501

Explanation: An MVS local or CML lock could not be released during DB2 subsystem abnormal termination processing.

This abend reason code is issued by the following CSECT: DSNVATRM

System Action: The execution unit is abended. The error is recorded on SYS1.LOGREC. DB2 subsystem termination is completed under a different execution unit if possible.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry is requested. Reason code '00E50504' is placed in the SDWA variable recording area (VRA). The VRA data contains information about the status of subsystem termination at the time of error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50502

Explanation: An MVS LOCAL lock could not be obtained during DB2 subsystem abnormal termination processing.

This abend reason code is issued by the following CSECT: DSNVATR4

System Action: The execution unit is abended. The error is recorded on SYS1.LOGREC, and abnormal DB2 subsystem termination is completed under a different execution unit if possible.

00E50503 • 00E50701

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry is requested. Reason code '00E50502' is placed in the SDWA variable recording area (VRA). The VRA data contains information about the status of the subsystem termination at the time of error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50503

Explanation: An MVS LOCAL lock could not be released during DB2 subsystem abnormal termination processing.

This abend reason code is issued by the following CSECT: DSNVATR4

System Action: The execution unit is abended. The error is recorded on SYS1.LOGREC, and abnormal DB2 subsystem termination is completed under a different execution unit if possible.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry is requested. Reason code '00E50503' is placed in the SDWA variable recording area (VRA). The VRA data contains information about the status of the subsystem termination at the time of error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50504

Explanation: This reason code is used to define the format of the information recorded in the SDWA variable recording area (VRA) by the subsystem termination processor. The code identifies additional information provided in the VRA for abends encountered in module DSNVATRM.

This abend reason code is issued by the following CSECT: DSNVATRR

System Action: Recording of the error encountered during subsystem termination continues.

System Programmer Response: If you suspect an

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: For information about finding the SDWA refer to Part 2 of *DB2 Diagnosis Guide and Reference*

00E50505

Explanation: This reason code is used to define the format of the information recorded in the SDWA variable recording area (VRA). The code identifies additional information provided in the VRA for abends encountered in module DSNVATR4.

This abend reason code is issued by the following CSECT: DSNVATRR

System Action: Recording of the error encountered during subsystem termination continues.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E50701

Explanation: A failure occurred during Commit Phase 1. This abend is used to effect abort, deallocation, and end-UR processing.

This abend reason code is issued by the following CSECTS: DSNVEUS2, DSNVEUS3

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Standard DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials generated at the time of the abend. Register 6 contains the address of the active EB when the commit failed. The DB2 global trace table contains an entry for the commit-UR function exit. The entry contains return and reason codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50702

Explanation: An error occurred while processing in SRB mode which could not be recovered.

This termination reason code is issued by the following CSECT: DSNVEUS2

System Action: The DB2 subsystem is abended with this reason code.

Operator Response: Notify the system programmer and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump of the original failure was requested by the recovery routine for DSNVEUS2 and a record written to SYS1.LOGREC. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

00E50703

Explanation: This subsystem termination reason code is used following an error while attempting to resume a suspended execution unit. The successful completion of resume processing was indoubt.

This reason code is issued by the following CSECTs:

DSNVCST0 DSNVDST0 DSNVEUS1 DSNVEUS3

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials generated at the time of the original error. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50704

Explanation: An error occurred in the DB2 Service Task Controller which could not be recovered.

This termination reason code is issued by the following CSECT: DSNVEUS4

System Action: The subsystem is terminated with this reason code. Additionally, if no SDWA was provided to the recovery routine, a subsystem termination dump is requested.

Operator Response: Notify the system programmer and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If an SDWA was available, a DB2 dump of the original failure was requested and should be analyzed to determine the nature of the original error. If no SDWA was available, the standard MVS SVC dump taken by subsystem termination must be analyzed. The Service Task Controller is the first descendent TCB of the job step TCB in the failing home address space. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

00E50705

Explanation: A subsystem termination was requested for one of the following reasons:

1. An agent was flagged as executing in 'must complete' mode,
2. An execution unit holds a latch,
3. An agent is marked as being on a latch waiter queue, when none of these conditions should be true. Additionally, the subsystem termination may have been preceded by an abend with this reason code.

This termination reason code is issued by the following CSECTs:

DSNVEOT1 DSNVEUS2 DSNVEUS3

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials generated at the time of the original error. Refer to the accompanying abend code to determine the failure while in 'must complete' state. Refer to "DB2 abend completion codes (X'04E' and X'04F)" on page 5 for information about X'04F' and X'04E' abend completion codes.

If subsystem termination was requested by module DSNVEUS2, a standard MVS SVC dump will be generated.

The 'must complete' indicator is bit ACEMC. Latch-held indicators are in field EBLTCHLD. Latch waiter status information is in field EBLWSI.

Usually these conditions occur as the result of a prior failure where the associated recovery routine did not perform correct resource cleanup. The condition may also occur if a resource manager function does not release all latches and/or reset the 'must complete' bit before returning control to either DSNVEUS2 or DSNVEUS3.

00E50706

Explanation: Either an unrecoverable error occurred while processing an End-of-Task condition on a DB2 service task or an asynchronous service task terminated for reasons other than an explicit "Delete Service Task" request. An abend with this reason code is requested if the latter situation occurs.

This termination reason code is issued by the following CSECT: DSNVEOT1

System Action: The subsystem is terminated with this reason code. Additionally, if no SDWA was provided to the recovery routine, a subsystem termination dump is requested.

Operator Response: Notify the system programmer of the failure and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If an SDWA was available, a DB2 dump of the original failure was requested and should be analyzed to determine the nature of the original error. If no SDWA was available, the standard MVS SVC dump taken by subsystem termination must be analyzed. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

00E50707

Explanation: An ESTAE could not be established to protect a service task, the service task controller, or the recovery control task. This is a subsystem termination reason code.

This reason code is issued by the following CSECTs:

DSNVEUS3 DSNVEUS4 DSNVEOT1 DSNVRCT

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Review the usage and the free areas in the LSQA subpools of the two DB2 address spaces. If necessary, increase the private area size of the failing address space. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: If subsystem termination was requested by module DSNVRCT, a standard MVS SVC dump was requested. If insufficient private storage is the cause of the problem, other DB2 resource managers may have abended. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00E50708

Explanation: An abend occurred while connecting an allied agent to the System Services address space. The connection must complete so that the allied agent can be terminated.

This termination reason code is issued by the following CSECT: DSNVCONN

System Action: The DB2 subsystem is terminated with this reason code.

Operator Response: Notify the system programmer of the failure and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump of the original error was requested and a record entered into

SYS1.LOGREC. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

00E50709

Explanation: Subsystem termination was requested following a failure in a service task, the service task controller, or the recovery control task that could not be recovered by the ESTAE of the failing task.

This reason code is issued by the following CSECT: DSNVSTAI

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. Determine the registers and the failing task at the time of the error. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials generated at the time of the original error. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50710

Explanation: An abend occurred while disconnecting an allied agent from its home address space. The disconnect function is required before the agent can be connected to the Systems Services address space and then terminated.

This termination reason code is issued by the following CSECT: DSNVDISC

System Action: The DB2 subsystem is terminated with this reason code.

Operator Response: Notify the system programmer of the failure and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump of the original error was requested and a record entered into SYS1.LOGREC. Refer to Appendix A, "CICS

Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

00E50711

Explanation: An error occurred in a latch manager function and the status of one or more execution units waiting for a latch is indoubt. The latch manager functional recovery routine could not determine whether all waiting execution units had been resumed.

This termination reason code is issued by the following CSECT: DSNVLFRR

System Action: The DB2 subsystem is terminated with this reason code.

Operator Response: Notify the system programmer of the failure and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries looking for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump of the original error was requested and a record entered into SYS1.LOGREC. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

00E50712

Explanation: An error occurred in a latch manager function attempting to terminate the holder of a DB2 latch. The holder's TCB has been set nondispatchable by MVS and a CALLRTM to terminate this TCB has failed.

This termination reason code is used by the following CSECTs: DSNVXLT0, DSNVLFRR

System Action: The DB2 subsystem is terminated with this reason code.

Operator Response: Notify the system programmer of the failure and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump of the error is requested and a record entered into SYS1.LOGREC. Register 3 at time of error contains the latch-holder's TCB address in the home address space and register 4 contains the return code from CALLRTM. Refer to "DB2 abend completion codes (X'04E' and X'04F)" on page 5

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for information about X'04E' and X'04F' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E50713

Explanation: The agent services recovery control task was entered in the suspend CANCEL exit. Subsystem termination was requested with this reason code.

This reason code is issued by the following CSECT: DSNVRCT

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. It may be necessary to analyze the MVS SVC dump requested by the subsystem termination processor. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An MVS SVC dump was requested by the subsystem termination processor. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351. for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00E50715

Explanation: Subsystem termination was requested following an unrecoverable error in a DB2 SRB mode execution unit.

This reason code is issued by the following CSECT: DSNVRCT

System Action: The SRB-related task was abended as a result of SRB to TCB percolation. The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials generated at the time of the original

error. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50717

Explanation: The subsystem was terminated, because resource manager ESTAE exits could not be purged for the default service task.

This reason code is issued by the following CSECT: DSNVEUS3

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If an abend preceded the subsystem termination request, DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E50719

Explanation: A failure occurred in a service task, the service task controller, or the recovery control task and was not recovered by the ESTAE of the failing task. No SDWA was provided to the ESTAE exit. This is a subsystem termination reason code.

This reason code is issued by the following CSECT: DSNVSTAI

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. Register 3 contains the abend code of the original error. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Module DSNVSTAI was

unable to generate a standard DB2 SYS1.LOGREC entry and SVC dump, because system diagnostic work area (SDWA) was not provided by the recovery termination management (RTM) facility of MVS. An MVS SVC dump was requested by system termination. To determine the location of the error, examine the RB structure of the failing TCB.

DB2 diagnostic information may have been obtained by other recovery routines if an abend preceded the subsystem termination request. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00E50725

Explanation: Subsystem termination was requested because of an unrecovered error in a DB2 scheduled SRB-mode execution unit.

This reason code is issued by the following CSECT: DSNVRCT

System Action: The SRB-related task DSNVRCT was abended. due to SRB to TCB percolation. The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. If necessary, analyze the MVS SVC dump requested by subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials obtained as a result of abends occurring prior to subsystem termination. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

An MVS SVC dump was requested by system termination. To determine the location of the error, examine the RB structure of the failing TCB. Register 1 contains the original SRB abend code.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00E50727

Explanation: A secondary failure occurred during agent services functional recovery processing. This is a subsystem termination reason code.

This reason code is issued by the following CSECTs:

DSNVEUS1 DSNVEUS2 DSNVDST0 DSNVEOT1
DSNVSTAI

System Action: The DB2 subsystem is abended.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Scan the SYS1.LOGREC entries for one or more DB2 abends occurring immediately prior to the subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. Determine the functional recovery routine that failed and the registers at the time of the error.

Problem Determination: DB2 diagnostic information may be obtained through SYS1.LOGREC and SVC dump materials generated at the time of the original error. If the subsystem termination request was issued by module DSNVEUS2, an MVS SVC dump was requested. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information about X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00E50730

Explanation: A thread being processed through thread deallocation was found to still have an outstanding unit of recovery and is marked as being inflight. This is a subsystem termination reason code.

System Action: The DB2 subsystem is terminated with this reason code.

Operator Response: Contact the system programmer.

System Programmer Response: Scan the SYS1.LOGREC entries and associated console listing for one or more DB2 abends prior to subsystem termination. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A DB2 dump of the error is requested and a record is entered into SYS1.LOGREC. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNVIALC

Chapter 49. X'E6.....' codes

This chapter contains Instrumentation Facility abend codes.

00E60000

Explanation: This reason code is used to indicate that information has been added to the SDWA variable recording area (VRA) following the data provided by the DSNWRCRD service. This is done so that anyone examining a SYS1.LOGREC entry can determine, from the reason code, what additional data has been placed in the VRA. The reason code is the first data item in the VRA, as mapped by macro IHAVRA.

This abend code is issued by the following CSECT: DSNWVCM1

System Action: The command being processed, failed. The DB2 subsystem remains operational.

Problem Determination: The diagnostic data table (DSNDDDT control block) should appear in the SDWA variable recording area.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00E60008

Explanation: This reason code is used to indicate that MVS and DB2 dispatching units do not match. There is an internal DB2 dispatching unit problem which should not occur.

This abend code is issued by the following CSECT: DSNWVAPR

System Action: The function being traced is abended. The DB2 subsystem remains operational and the functional recovery of TRACE will retry if possible.

Problem Determination: The problem is either the ASID of EB primary (EBPASCE->ASCE->ASID) did not match the EPAR ASID, or the ASID of the EB home (EBHASCE->ASCE->ASID) did not match the MVS home dispatching unit (PSAAOLD->ASCB->ASID), or the PSATOLD did not match the EBEXU field. Analyze the dump and previous SYS1.LOGREC entries do isolate the cause of the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E60086

Explanation: An internal logic problem occurred trying to obtain the MVS CML lock.

This abend reason code is issued by the following CSECTS: DSNWARDA, DSNWVOPX

System Action: The request is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Request the SYS1.LOGREC and SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00E60087

Explanation: An internal error occurred attempting to free the MVS CML lock.

This abend reason code is issued by the following CSECTS: DSNWARDA, DSNWVOPX

System Action: The request is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Request the SYS1.LOGREC and SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This error is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00E60088

Explanation: An internal logic problem occurred on a READS request. The event is being traced asynchronously, which is not allowed.

This abend reason code is issued by the following CSECT: DSNWVSR2

System Action: The request is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Request the SYS1.LOGREC and SVC dump. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is an internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00E60100 through 00E60199

00E60100 through 00E60199

Explanation: The reason codes 00E60100 through 00E60199 are used by the instrumentation facility component (IFC) when a trace event occurs for which IBM service personnel have requested a dump using the IFC selective dump service aid.

This abend reason code is issued by the following CSECT: DSNWVAPR

System Action: The abending agent might be retried or terminated, depending upon the serviceability dump request.

Problem Determination: The abend is issued on the occurrence of a specified trace event. A SVC dump is taken to the SUS1.DUMPxx data set. Problem determination methods depend on the condition that IBM service personnel are attempting to trap.

Chapter 50. X'E6.....' reason codes

This chapter contains Instrumentation Facility Interface (IFI) reason codes. Where there are two numbers, the first number is the return code that DB2 places in field IFCARC1 of the IFI Communication Area (IFCA); the number after the slash is the reason code that DB2 places in field IFCARC2. Where there is a single number, that number is the reason code that DB2 places in field IFCAGRSN. See Appendix E (Volume 2) of *DB2 Administration Guide* for information on IFI.

00000004/00E60800

Explanation: The command was completed, but the return area was not large enough to accommodate all the output messages. The return area contains the last complete message segment that fit. The IFCABM field in the IFCA indicates the number of bytes moved to the return area. The IFCABNM field in the IFCA indicates the number of bytes which were not moved because the return area was too small.

This reason code is issued by the following CSECT:
DSNWACMD

User Response: Allocate more storage for the return area, if desired, and reissue the request.

00000004/00E60801

Explanation: The command was partially completed, but an internal error was encountered. Check the return area for a message.

This reason code is issued by the following CSECT:
DSNWACMD

User Response: Dependent upon the message in the return area.

00000004/00E60802

Explanation: The instrumentation facility request was partially completed, but the return area was not large enough to accommodate all the output. The return area contains the last complete record that fit. The IFCABM field in the IFCA indicates the number of bytes moved to the return area for the READS or READA request. The IFCABNM field in the IFCA indicates the number of bytes that could not fit in the return area.

This reason code is issued by the following CSECT:
DSNWARDA

User Response: Allocate more return area storage and reissue the request.

00000004/00E60803

Explanation: No data was returned from the READA request because none was available. Either the OPn storage buffer was empty or the application program had already retrieved all the trace records.

00000004/00E60804

Explanation: No data was returned from the READS or READA request, or no data was returned for at least one of the requested IFCIDs on a READS request for multiple IFCIDs. This can happen for one of these reasons:

- The destination OPx value specified in the IFCA was not active for a READA request.
- The qualification information specified did not match a process for a READS request.
- No information was available for a READS request.
- The user return area on a READS or READA request was too small to receive even a single record.

This reason code is issued by the following CSECTS:
DSNWAAPI, DSNWARDA, DSNWALCK, DSNWARDS

User Response: If the OPn destination was not active, then activate the OPn destination or issue the request using an OPn destination that is active.

If the IFCABNM field (number of bytes not moved) is nonzero, then the user return area is too small. Increase the size of the user return area, and resubmit the request.

00000004/00E60805

Explanation: The request for information resulted in an abend.

This reason code is issued by the following CSECT:
DSNWAAPI

User Response: Dependent upon the abend code in the log record. Refer to the IFCABM field in the IFCA (the number of bytes moved to the return area) to determine if partial information was returned.

Problem Determination: See EREP log record in SYS1.LOGREC. See the Environmental Record Editing and Printing program (EREP) User's Guide and Reference for instructions on how to print SYS1.LOGREC.

00000004/00E60806

Explanation: The request for information resulted in an abend, perhaps because one of the parameters on the call was invalid. If a SYSUDUMP or SYSABEND DD

00000004/00E60807 • 00000004/00E60811

statement is present in your JCL, you will receive an abend dump.

This reason code is issued by the following CSECT:
DSNWAAPI

User Response: Dependent upon the abend code.

Problem Determination: See abend code in abend dump or EREP log record in SYS1.LOGREC. Examine the parameter list. Among other possible causes, the high-order bit of the last parameter must be on in order to indicate the end of the parameter list. See the Environmental Record Editing and Printing program (EREP) User's Guide and Reference for instructions on how to print SYS1.LOGREC.

00000004/00E60807

Explanation: The request for information resulted in an abend, possibly because either the ACE token passed was invalid or became invalid during processing. In this case, no SDUMP is taken and control returns to the application program.

This reason code is issued by the following CSECT:
DSNWAAPI

User Response: If your application program does not pass a token, you can reissue the previous IFI request from the application program.

Problem Determination: If the application program passes an ACE token, the token is probably invalid.

00000004/00E60808

Explanation: The request for information resulted in an abend. Perhaps a DB2 structure became invalid while your application program was using it.

This reason code is issued by the following CSECT:
DSNWAAPI

User Response: To reduce the chance of this occurring, issue requests from a task with a higher priority than DB2 and its users. Certain requests (for example, a READS for IFCIDs 0147 and 0148) are more likely to encounter this type of problem. The request may be reissued. No SDUMP is taken and control is returned to the application program.

00000004/00E60809

Explanation: An IFI READS request for the IDCID 129 record was only partially successful. The request attempted to obtain CIs that have yet to be written. All available complete CIs were returned.

This reason code is issued by the following CSECT:
DSNWALOG

User Response: No response is needed. All available CI's were returned.

Problem Determination: Examine the WQALLRBA

and WQALLNUM fields of the READS request. (WQALLRBA + (WQALLNUM * 4KB)) > ending RBA of the last complete CI in the log.

00000004/00E6080A

Explanation: On a READS request for IFCID 316, the request was partially successful. The return area was not big enough to accommodate all the output. The return area contains up to the last record that fits.

User Response: Allocate more return area storage and reissue the request.

00000004/00E6080B

Explanation: On a READS request for IFCID 317, no data was returned because a matching statement was not found.

User Response: Ensure that the statement identifier for a currently cached statement is provided and reissue the request.

00000004/00E6080C

Explanation: On a READS request for IFCID 316, no data was returned because no statements matched the qualification criteria. This error can happen when WQALFLTR = X'02' and no cached statements exceed the threshold specified in WQALFVAL. This can also happen if the dynamic statement cache but no statements have yet been inserted into the cache.

User Response: Adjust the qualification criteria and reissue the request.

00000004/00E60810

Explanation: A READS request for IFCID 0254 was partially successful. The return area was not large enough to accommodate all output. The return area contains as many complete records as can fit.

User Response: Allocate more return area storage and reissue the request.

Problem Determination: This reason code is issued by the following CSECT: DSNWATGS

00000004/00E60811

Explanation: On a READS request for IFCID 0254, no data was returned because no qualified group buffer pools were connected.

User Response: Ensure that the qualified group buffer pools are connected and reissue the request.

Problem Determination: This reason code is issued by the following CSECT: DSNWATGS

00000004/00E60812

Explanation: On a READS request for IFCID 0306, log records are returned. The end-of-scope log point has been reached and no position is held in the log. The end-of-scope log point is returned in field QW0306ES, and the number of records is returned in field QW0306CT from the QW0306 section.

User Response: A WQALMODT request to terminate the log position might be necessary to release held resources, or a WQALMODF request after a pause to initiate a first call.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

00000004/00E60813

Explanation: On a READS request for IFCID 0306, no data is returned because no log records were found that met the criteria. No position is held in the log. The end-of-scope log point is returned in field QW0306ES and zero is returned in field QW0306CT from the QW0306 section.

User Response: If this is caused by a WQALMODN call, issue a WQALMODF call after a pause to initiate a first call. However, there is still no guarantee that log records will be returned that meet the criteria.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

00000004/00E60814

Explanation: On a READS request for IFCID 0306, a WQALMODT call was invoked to terminate log position when no position is held in the log.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

00E60815

Explanation: On a READA or READS request for multiple members of a data sharing group, the return area was not large enough to hold all the data returned from other members. This reason code is returned in field IFCAGRSN of the IFCA.

User Response: Increase the size of the return area.

00E60816

Explanation: On a READA or READS request for multiple members of a data sharing group, no data was returned from other members of the data sharing group. This reason code is returned in field IFCAGRSN of the IFCA.

00000008/00E60820

Explanation: The command request did not complete normally. Check the IFCABM field in the IFCA to see if any message segments have been returned. There are many reasons for this condition, including:

- Command authorization failure
- Command processor abend
- Command syntax error
- Command output limit being exceeded.

This reason code is issued by the following CSECT: DSNWACMD

Problem Determination: To determine the reason for the failure, analyze the message or messages that are returned.

00000008/00E60821

Explanation: The request was not processed because a specified IFCID is not valid for the READS or WRITE function.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Remove or replace the invalid IFCID.

Problem Determination: Check the IFCA diagnostic area (IFCAD) for the IFCID in error.

00000008/00E60823

Explanation: The WRITE request was not processed because the IFCID specified was not active.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Activate the IFCID or reissue the request with a different IFCID.

00000008/00E60824

Explanation: An authorization failure occurred. On a READA request, the ownership token specified did not match the owner of an active trace, or on either a READA or READS request the user did not have the correct monitor authority.

This reason code is issued by the following CSECTs: DSNWARDA, DSNWARDS

User Response: Reissue the request with the correct ownership token for the desired OPn destination or obtain the appropriate monitor authority, as needed.

Problem Determination: Examine the specified ownership token and the monitor authority of the user.

00000008/00E60825

Explanation: Stack storage was not available for copying the output area.

This reason code is issued by the following CSECTs: DSNWAAPI, DSNWARDS

00000008/00E60826

Explanation: On a READA request, the destination specified did not match a valid destination.

This reason code is issued by the following CSECT: DSNWARDA

User Response: Reissue the request using a valid destination.

00000008/00E60827

Explanation: On a READA request, the destination specified did not have an instrumentation facility buffer assigned. The application program must start a trace to the destination specified before attempting a READA request.

This reason code is issued by the following CSECT: DSNWARDA

User Response: Start a trace to the desired destination, and reissue the request.

00000008/00E60828

Explanation: On a READS request for IFCID 149 or 150, IRLM was not able to return all the data that was applicable to the queried agent or resource. IRLM can return a maximum of 32KB of lock data about a given agent or resource. If IRLM notifies DB2 that more than 32KB of lock data is applicable for a given agent or resource, then DB2 does not request the information from IRLM. No data is returned, and reason code 00E60828 is issued by IFI.

This reason code is issued by the following CSECT: DSNWALCK

User Response: The READS request for IFCID 149 OR 150 continues to return code 00E60828 until less than 32KB of lock data is applicable to the given agent or resource that the READS request for IFCID 149 or 150 is querying. You can continue to issue READS requests for IFCID 149 or 150 with no guarantee that the volume of lock data has decreased.

00000008/00E60829

Explanation: On a READS request, an unexpected return code was received from IRLM.

This reason code is issued by the following CSECT: DSNWALCK

00000008/00E60830

Explanation: An unexpected return code was received on a READS request.

This reason code is issued by the following CSECT: DSNWARDS

User Response: Reissue the request. If the condition persists, contact your IBM support center and tell them the message you are encountering.

00000008/00E60831

Explanation: A number of abends have occurred while processing IFI requests resulting in the disabling of all IFI request and MONITOR trace processing.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Issue a -START TRACE to clear the condition. This condition may not be cleared by issuing the -START TRACE command via instrumentation facility interface COMMAND function.

Problem Determination: Obtain a copy of the system or terminal log. If a dump was produced, have it printed. Print a copy of the contents of SYS1.LOGREC for the time period involved. Forward these items along with a copy of the system log to the systems programmer.

00000008/00E60832

Explanation: The IFCID specified on a READS was not active.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Issue a -START TRACE for monitor class 1.

00000008/00E60833

Explanation: A request for storage from the log-read storage pool has failed due to exhaustion of available storage or four log-read read requests are already holding storage from the pool.

This reason code is issued by the following CSECT: DSNWALOG

User Response: Allow other active READS requests for IFCID 129 to finish and then reissue the request.

Problem Determination: Examine the activity of READS requests for IFCID 129. If requests for more than 64 CIs are active at the same time, storage problems may occur.

00000008/00E60834

Explanation: An unexpected return code was received from log manager macro DSNJOLGR.

This reason code is issued by the following CSECT: DSNWALOG

User Response: Reissue the request. If the problem persists, contact your IBM service representative.

Problem Determination: Examine the validity of WQALLRBA and WQALLNUM fields.

00000008/00E60835

Explanation: An unexpected return code was received from Log Manager Macro DSNJLGR.

This reason code is issued by the following CSECT: DSNWALOG

User Response: Reissue the request. If the problem persists, contact your IBM service representative.

Problem Determination: Examine the validity of WQALLRBA and WQALLNUM fields.

00000008/00E60836

Explanation: An unexpected return code was received from log manager macro DSNJCLGR.

This reason code is issued by the following CSECT: DSNWALOG

User Response: Reissue the request. If the problem persists, contact your IBM service representative.

Problem Determination: Examine the validity of WQALLRBA and WQALLNUM fields.

00000008/00E60837

Explanation: On an IFI READS request for IFCID 1 or 2, storage was not available to satisfy the request.

This reason code is issued by the following CSECT: DSNWASTA

User Response: Reissue the request. This condition is only temporary and should be extremely rare. If this condition persists, contact your IBM support representative, and tell them the message you are encountering.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00000008/00E60838

Explanation: On a READS request for IFCID 0254, a resource was unavailable while attempting to collect statistics for a specific group buffer pool.

User Response: Reissue the request. If the problem persists, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The group buffer pool name and the reason code returned from the internal macro are saved in fields IFCAGBPN and IFCAR0B.

This reason code is issued by the following CSECT: DSNWATGS

00000008/00E60839

Explanation: On a READS request for IFCID 149 or 150, IRLM was not able to return all the data that was available to the queried agent or resource. IRLM can return a maximum of 32KB of lock data about an agent or resource. If IRLM notifies DB2 that more than 32KB of lock data is available for that agent or resource, DB2 requests the information from IRLM, but returns up to 32KB of information to the application and IFI issues this reason code.

Problem Determination: This reason code is issued by the following CSECT: DSNWALCK

00000008/00E6083A

Explanation: On a READS request for IFCID 316 or IFCID 317 no data was returned because Dynamic Statement Caching is not active on this DB2 system.

User Response: The Dynamic Statement Cache must be activated through a system initialization parameter before READS requests can be processed for IFCID 316 or 317.

0000000C/00E60840

Explanation: An invalid function was specified. The function specified does not match one of the IFI supported functions.

This reason code is issued by the following CSECT: DSNWAAPI

User Response: Correct the function field of the DSNWLI call so that it is a left-justified, 8-character field containing WRITE, READA, READS, or COMMAND.

0000000C/00E60841

Explanation: The IFCA was specified incorrectly. The return code and reason code will be placed at the correct offset in the erroneous IFCA. The IFCA length might be invalid, or the IFCA eye-catcher (IFCAID) might be missing.

0000000C/00E60842 • 0000000C/00E60849

This reason code is issued by the following CSECT:
DSNWAAPI

User Response: Examine the length of the IFCA and the eye-catcher field of the IFCA. Correct any mistakes.

Problem Determination: See the return and reason codes placed at the correct offset in the erroneous IFCA.

0000000C/00E60842

Explanation: The return area was specified incorrectly. The length might be invalid. The length of the return area must be a fullword. The valid range for the return area length on IFI READS requests is X'000000064' to X'7FFFFFFF'. The valid range for the return area length on all other IFI requests is X'000000064' to X'00100000'.

This reason code is issued by the following CSECT:
DSNWAAPI

User Response: Respecify the return area length to conform to the valid range.

0000000C/00E60843

Explanation: The IFCID area was specified incorrectly. The length might be invalid. The valid range is from X'0006' to X'0044'.

This reason code is issued by the following CSECT:
DSNWAAPI

User Response: Respecify the IFCID area length field to conform to the valid range.

Problem Determination: Examine the length field of the IFCID area.

0000000C/00E60844

Explanation: The qualification area was specified incorrectly. The length might be invalid, or the WQAL eye-catcher (WQALEYE) might be missing.

This reason code is issued by the following CSECT:
DSNWAAPI

User Response: Correct any incorrect specification of the qualification area length and eye-catcher fields.

Problem Determination: Examine the length and eye-catcher fields of the qualification area.

0000000C/00E60845

Explanation: An IFCID specified for a READS or a WRITE request was invalid.

This reason code is issued by the following CSECT:
DSNWAAPI

User Response: Replace the errant IFCID with a valid one or remove it from the request.

Problem Determination: Check the IFCA diagnostic area for the IFCID in error.

0000000C/00E60846

Explanation: The output area was specified incorrectly.

This reason code is issued by the following CSECT:
DSNWAAPI

User Response: Correct either the output area length or the output area parameter on the DSNWLI call, depending on which one is in error.

Problem Determination: The length might be invalid; the valid range is from X'000A' to X'1000'. Also, the output area parameter on the DSNWLI call may have been specified as zero. The output area parameter must point to a valid output area.

0000000C/00E60847

Explanation: The buffer information area was specified incorrectly.

This reason code is issued by the following CSECT:
DSNWAAPI

User Response: Check that the buffer information area has an eye-catcher value of 'WBUF' and a length value equal to the length of 'WBUF' and correct any invalid values.

Problem Determination: The length might be invalid, or the 'WBUF' eye-catcher might be missing.

0000000C/00E60849

Explanation: The parameters are specified incorrectly on the IFI command request.

This abend reason code is issued by the following CSECT: DSNWAAPI

User Response: If the selective dump function is not being used, check that the parameters are specified correctly on the IFI request. If the selective dump function is being used, notify the system programmer.

Problem Determination: If the selective dump function is not being used, check that the parameters are correctly specified on the command request. Among other possible causes, the high-order bit of the last parameter must be on in order to indicate the end of the parameter list. For assembler users, this can be done by using the VL option on the call. Another possible cause is the sixth parameter is specified on the IFI request. The sixth parameter is reserved for the selective dump function.

0000000C/00E60850

Explanation: An invalid WQALLTYP value was specified on a READS request.

This abend reason code is issued by the following CSECT: DSNWARDS

User Response: Correct the invalid WQALLTYP value and reissue the request.

Problem Determination: Examine the validity of the WQALLTYP field. It must be 'CI'.

0000000C/00E60851

Explanation: An invalid WQALLMOD value was specified on a READS request.

This abend reason code is issued by the following CSECT: DSNWALOG

User Response: Correct the invalid WQALLMOD value and reissue the request.

Problem Determination: Examine the validity of the WQALLMOD field. It must be 'F' or 'R'.

0000000C/00E60852

Explanation: An invalid WQALLRBA value was specified on a READS request. The starting CI log RBA must end in X'000'.

This abend reason code is issued by the following CSECT: DSNWARDS

User Response: Correct the invalid WQALLRBA value and reissue the request.

Problem Determination: Examine the validity of the WQALLRBA field. It must end in X'000'.

0000000C/00E60853

Explanation: An invalid WQALLNUM value was specified on a READS request. The valid range is X'0001' to X'0007'.

This abend reason code is issued by the following CSECT: DSNWARDS

User Response: Correct the invalid WQALLNUM value and reissue the request.

Problem Determination: Examine the validity of the WQALLNUM field. The valid range is X'0001' to X'0007'.

0000000C/00E60854

Explanation: The specified WQALLRBA was not in the active log.

This abend reason code is issued by the following CSECT: DSNWALOG

User Response: Correct the invalid WQALLRBA value and reissue the request.

Problem Determination: Examine the validity of the WQALLRBA field. Check the beginning RBA of the active log. The WQALLRBA field must be greater than or equal to the beginning RBA value of the active log. The RBA of the first CI in the active log will be returned in field IFCAFCI or it can be determined by running the print log map (DSNJU004) utility.

0000000C/00E60855

Explanation: A log RBA value past the end of the current active log was specified. The specified WQALLRBA value was beyond the end of the log. The CI has yet to be written.

This abend reason code is issued by the following CSECT: DSNWALOG

User Response: Correct the invalid WQALLRBA value and reissue the request.

Problem Determination: Examine the validity of the WQALLRBA field. Check the ending RBA of the log. The WQALLRBA field must be less than the ending RBA value.

0000000C/00E60856

Explanation: No complete CI's are available from the RBA specified in WQALLRBA.

This abend reason code is issued by the following CSECT: DSNWALOG

User Response: Lower the value in WQALLRBA by at least X'1000' or wait until at least one CI has been written beyond the RBA specified in WQALLRBA and reissue the request.

Problem Determination: Examine the WQALLRBA field and determine whether or not one complete CI beyond WQALLRBA has been written to the log.

0000000C/00E60857

Explanation: This code indicates that an IFI READS request for IFCID 185 contained an invalid WQALCDCD value.

System Action: Control returns to the user program with return code 0000000C in field IFCARC1 and reason code 00E60857 in field IFCARC2.

User Response: WQALCDCD is a user-specified field in the QUAL_AREA of an IFI READS for IFCID 185. Reissue the request with a valid WQALCDCD value. For IFI READS requests for IFCID 185, the valid values are A, Y, and N. If a value is not specified, a value of A is used as the default.

0000000C/00E60858

Explanation: This code indicates that an IFI READS request for IFCID 185 was denied because the system parameters indicate that data capture processing is not allowed on this DB2 system. The system parameter field SPRMDCD is set to 'no'.

System Action: Control returns to the user program with return code 0000000C in field IFCARC1 and reason code 00E60858 in field IFCARC2.

User Response: Inspect system parameter SPRMDCD. If change data capture is not allowed on this system, consult with the database administrator to determine if the system parameter should be changed to 'yes' to allow DB2 data capture processing.

00000008/00E60859

Explanation: An IFI READS request for IFCID 129 was made to pass the last partially full log CI to the log exit, but the log exit is not active. Either the log exit (DSNJW117) was not installed, or an error in the exit has deactivated the exit.

This reason code is issued by the following CSECT: DSNWALOG

User Response: Either install the log capture exit, or look for message DSNJ150E indicating that the log capture exit has been deactivated. See the description for DSNJ150E for more information about reactivating the log capture exit.

0000000C/00E60860

Explanation: On a READS request for IFCID 0254, an error was encountered while collecting statistics for a group buffer pool.

User Response: Reissue the request. If the problem persists, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The group buffer pool name is saved in field IFCAGBPN. The reason and return code from the internal macro are saved in fields IFCAR0B and IFCAR1B.

This reason code is issued by the following CSECT: DSNWATGS

0000000C/00E60861

Explanation: An invalid WQALGBPN value was specified on a READS request.

User Response: Correct the invalid WQALGBPN value and reissue the request.

Problem Determination: Examine the validity of the WQALGBPN field. The qualifier is an 8-byte group

buffer pool name in which an imbedded X'00' is used as a pattern character.

This reason code is issued by the following CSECT: DSNWATGS

00000008/00E60863

Explanation: On a READS request for IFCID 0306, a resource was unavailable while attempting to read the log.

User Response: Reissue the request. If the problem persists, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

00000008/00E60864

Explanation: On a READS request for IFCID 0306, the return area supplied was not large enough to hold one log record. No log record is returned, but position is held in the log.

User Response: Increase the size of the return area and issue a WQALMODN request. If the problem persists, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The size of the return area required is returned in field IFCABSRQ of the IFCA return area.

This reason code is issued by the following CSECT: DSNWALRS

00000008/00E60865

Explanation: On a READS request for IFCID 0306, no data is returned for a WQALMODF call because log position is already held in the log, possibly by a previous WQALMODF call.

User Response: You might want to use a WQALMODN request instead.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

00000008/00E60866

Explanation: On a READS request for IFCID 0306, no data is returned for a WQALMODN call because no log position is held in the log.

User Response: A WQALMODF call might be necessary before a WQALMODN call.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

0000000C/00E60867

Explanation: An invalid WQALLRBA value was specified on a READS request for IFCID 0306. The specified value exceeds the end-of-log.

User Response: Correct the WQALLRBA field. A pause might also be necessary before you issue a WQALMODF request again.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

0000000C/00E60868

Explanation: The return area was specified incorrectly for IFCID 0306. The return area did not reside in ECSA storage.

User Response: Respecify the return area and make sure that it resides in ECSA storage.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

0000000C/00E60869

Explanation: An invalid WQALLCRI field was specified on a READS request for IFCID 0306.

User Response: Correct the invalid WQALLCRI field and reissue the request.

Problem Determination: Check the validity of the WQALLCRI field. It must be X'00'.

This reason code is issued by the following CSECT: DSNWALRS

0000000C/00E60870

Explanation: An invalid WQALLOPT field was specified on a READS request for IFCID 0306.

User Response: Correct the invalid WQALLOPT field and reissue the request.

Problem Determination: Check the validity of WQALLOPT field. It must be X'00' or X'01'.

This reason code is issued by the following CSECT: DSNWALRS

00000008/00E60871

Explanation: On a READS request for IFCID 306, log records are returned, but data is not decompressed as requested.

This reason code is issued by the following CSECT: DSNWALRS

Problem Determination: See the reason code in field QW0306DG to determine why decompression was not performed. One reason code can be 00C90064, which

means that the decompression dictionary changed since the log record was written.

00000008/00E60872

Explanation: On a READS request for IFCID 0306, no data is returned for a WQALMODD call because log position is already held in the log, possibly by a previous WQALMODF or WQALMODN call.

User Response: If WQALMODD is desired, make sure that a WQALMODT call has been issued first.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

0000000C/00E60873

Explanation: On a READS request for IFCID 0306, no data is returned for a WQALMODF call because the RBA supplied was too old. This is because DB2 has migrated into and out of or out of data sharing mode.

User Response: The change of mode into and out of data sharing also changes the log sequencing from RBA to LRSN and back to RBA. A log read application that is sensitive to log sequencing should take an appropriate action. A cold start of the application might be necessary.

Problem Determination: This reason code is issued by the following CSECT: DSNWALRS

0000000C/00E60874

Explanation: An invalid value was specified for WQALFLTR on a READS request for IFCID 316. See the definition in the DSNDWQAL parameter block for valid values.

User Response: Correct the invalid WQALFLTR value and reissue the request.

0000000C/00E60875

Explanation: An invalid value was specified for WQALFFLD on a READS request for IFCID 316. See the definition in the DSNDWQAL parameter block for valid values. This error might also be issued if WQALFLTR = X'02' is specified with WQALFFLD = 'A'.

User Response: Correct the invalid WQALFFLD value and reissue the request.

Chapter 51. X'E6.....' Abend Codes

This chapter contains Instrumentation Facility (IFI) abend codes.

00E60886

Explanation: This reason code is used to indicate that an invalid IAMQ function was passed to module DSNWVZXT. This problem should not occur.

This abend code is issued by the following CSECT:
DSNWVZXT

System Action: The function requested is abended. The DB2 subsystem remains operational and the functional recovery will retry if possible.

Problem Determination: The IAMQ function requested does not match a function handled by DSNWVZXT. Analyze the dump and previous SYS1.LOGREC entries to isolate the cause of the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E60887

Explanation: The reason code is set by the Instrumentation Statistics Facility FRR routine when an abend condition occurs during statistics gathering. The reason code only appears in the VRA data of SYS1.LOGREC to indicate the WWAB block exists in the variable recording area following the standard DB2 information.

This code is issued by the following CSECT:
DSNWVZSS

System Action: Depending on the number of errors the Instrumentation Statistics Facility may be turned off. The FRR will attempt a retry to RTM to keep the DB2 subsystem operational.

System Programmer Response: The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Normally the standard SYS1.LOGREC entries provide the necessary information to isolate the failing module. The WWAB control block in the variable recording area provides the resource manager RMID last called (WWABRMID) and the RMID of which resource manager Instrumentation Statistics Facility called when the failure occurred (WWABFRMS). If WWABFRMS is binary zero, then the error occurred in the Instrumentation Statistics Facility.

00E60888

Explanation: The reason code is set by the Instrumentation Accounting Facility FRR routine when an abend condition occurs during the accounting function. The reason code only appears in the VRA data of SYS1.LOGREC to indicate the WWAB block exists in the variable recording area following the standard DB2 information.

This code is issued by the following CSECT:
DSNWVZSA

System Action: Depending on the number of errors the Instrumentation Accounting Facility may be turned off. The FRR will attempt a retry to RTM to keep the DB2 subsystem operational.

System Programmer Response: The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Normally the SYS1.LOGREC standard entries provide the necessary information to isolate the failing module. The WWAB control block in the variable recording area provides the resource manager RMID last called (WWABRMID) and the RMID of which resource manager Instrumentation Statistics Facility called when the failure occurred (WWABFRMS). If WWABFRMS is binary zero, then the error occurred in the Instrumentation Accounting Facility.

00E60900

Explanation: This is an informational code. One or more data rows defined with DATA CAPTURE CHANGES might not have been retrieved.

This abend code is issued by the following CSECTs:
DSNILEDA, DSNWACDC

System Action: All successfully retrieved data rows defined with DATA CAPTURE CHANGES are returned in the return area. One header instance of 0185 is returned for each data row associated with a failure or warning. A reason code in field QW0185RC in the header indicates the reason for the failure or warning.

Problem Determination: Inspect the reason code in QW0185RC to determine the cause of each failure or warning.

00E60901

Explanation: The available buffer is not large enough to hold the largest 0185 record instance.

This abend code is issued by the following CSECT:
DSNILESP

System Action: No data is returned.

User Response: Reissue the IFI READS request for IFCID 0185 with a larger return area. The suggested size of the new area is 4KB more than the original size.

00E60902

Explanation: The IFI READS request for IFCID 0185 is invalid. The READS request tried to retrieve captured DB2 table changes, but no data was captured for the current SQL statement.

This abend code is issued by the following CSECT:
DSNILEDA

System Action: No data is returned.

User Response: Ensure that the IFI READS request follows the current SQL statement and precedes any subsequent SQL statement. Captured data must be retrieved at the time of the SQL call.

00E60903

Explanation: One or more data rows marked with DATA CAPTURE CHANGES were not retrieved. In addition, there is insufficient space in the return area to hold all the data in an IFI READS request for IFCID 0185. This is a combination code for 00E60900 and 00E60802.

This abend code is issued by the following CSECT:
DSNILESP

System Action: As many complete 0185 records as can fit are returned in the return area. Also, one 0185 header record is returned for each failed data row. The reason code in field QW0185RC in the header indicates the reason for the failure.

User Response: Refer to the description of reason codes 00E60900 and 00E60802 for details.

00E60904

Explanation: The IFI READS request for IFCID 0185 could not be executed successfully because a resource was not available. Some 0185 record instances might have been returned to the return area before the problem occurred.

This abend code is issued by the following CSECT:
DSNILEDA

System Action: The last 0185 record instance returned is type D (QW0185TP = D). Field QW0185RC contains a reason code for the specific unavailable

resource. In addition, the data portion (QW0185DR) of this record instance contains the following message:

```
UNSUCCESSFUL EXECUTION CAUSED BY AN
UNAVAILABLE RESOURCE. REASON reason,
TYPE OF RESOURCE type,
AND RESOURCE NAME name
```

In the message, *reason* is identical to field QW0185RC. The variables *type* and *name* identify the specific resource that is unavailable at the time.

User Response: Retrieve all returned record instances. Examine the reason code (QW0185RC) for each instance for other possible errors or warnings. Use the reason code in QW0185RC and the error message in QW0185DR to determine why the resource is unavailable. Refer to "Resource types" on page 1355 in Appendix B, "Problem determination" for an explanation of resource type codes. Refer to Part 4, "Section 4. DB2 Codes," on page 773 for an explanation of the given reason code.

00E60A00

Explanation: A down-level data description was detected. A requester specified no data description to be returned in an IFI READS request for IFCID 0185. That is, the WQALCDCD field of the qualification area is set to N, but a description change (ALTER TABLE ADD) that requires a refresh of the data description occurred. This reason code does not apply to the success or failure of the IFI request, but rather to the status of the data in the IFCID 0185 record.

This abend code is issued by the following CSECT:
DSNILEDS

System Action: This reason code is only issued once for each table within each SQL scope. The 0185 record instance that contains this reason code has the header portion only. Moreover, contents of all time stamp, log RBA, and operation code fields in the header are all zeros.

User Response: The requester can issue an SQL DESCRIBE to get the new description, or can consider changing the DataPropagator NonRelational (DPropNR) exit routine to set WQALCDCD to A or Y.

00E60A01

Explanation: The data row marked with DATA CAPTURE CHANGES is rejected by the installation-defined edit procedure 'proc-name' for the object table. This reason code does not apply to the success or failure of the IFI request, but rather the status of the data in the IFCID 0185 record.

This abend code is issued by the following CSECT:
DSNILEDR

System Action: The following message is returned in the data area of 0185:

VIOLATION OF INSTALLATION DEFINED
 EDIT PROCEDURE *proc-name*.
 REASON CODE: *reason-code*

In the message, *proc-name* is the edit procedure name and *reason-code* is EXPLRC2 returned by the edit procedure.

User Response: Examine the edit procedure for any errors. If it is not an edit procedure error, determine the requirements imposed by the edit procedure.

00E60A08

Explanation: The following message is returned in the data portion of the data row area in the 0185 trace record:

```
COLUMN column_name ON TABLE table_name IN VIOLATION
OF INSTALLATION DEFINED FIELD PROCEDURE.
RT: return_code, RS: reason_code,
MSG: message_token.
```

An installation field procedure returned an error indicated by *return_code* for column *column_name* on table *table_name*. Use *return_code* to determine the problem. The *return code* can be:

- 4** Invalid value on decode
- 8** Invalid parameter value
- 12** Field procedure error on any function

Use *reason_code* and *message_token* for additional information. This reason code does not apply to the success or failure of the IFI request, but to the status of the data in the IFCID 0185 record.

This abend code is issued by the following CSECT:
 DSNXRDCD

System Action: Whenever this reason code is present in the QW0185RC field in the record header, no record is returned in the data row section for this table. The message listed above takes its place. The length of the record corresponds to the message length.

Programmer Response: Examine the field procedure for any errors. If it is not a field procedure error, determine the requirements imposed by the field procedure.

00E60A09

Explanation: The following message is returned in the data portion of the data row area in the 0185 trace record:

```
INCORRECT DATA RETURNED FROM FIELD PROCEDURE
fieldproc_name FOR TABLE table_name AND
COLUMN column_name,
MSG: message_token
```

Unexpected data was returned from field procedure *fieldproc_name* and for column *column_name* on table *table_name*. For more information see *message_token*.

This reason code does not apply to the success or failure of the IFI request, but to the status of the data in the IFCID 0185 record.

This abend code is issued by the following CSECT:
 DSNXRDCD

System Action: Whenever this reason code is present in the QW0185RC field in the record header, no record is returned in the data row section for this table. The message listed above takes its place. The length of the record corresponds to the message length.

Programmer Response: Correct the field procedure so that it returns values and their descriptions that are mutually consistent.

00E60A0A

Explanation: The following message was returned in the data portion of the data row area in the 0185 trace record:

```
AN INSTALLATION FIELD PROCEDURE HAS RETURNED A RETURN CODE
IN REGISTER 15 OTHER THAN AN EXPECTED 0 OR 4
```

This indicates that an installation field procedure returned an unexpected error. This reason code does not apply to the success or failure of the IFI request, but to the status of the data in the IFCID 0185 record.

This abend code is issued by the following CSECT:
 DSNXRDCD

System Action: Whenever this reason code is present in the QW0185RC field in the record header, no record is returned in the data row section for this table. The message listed above takes the place of the record. The length of the record corresponds to the message length.

Programmer Response: Examine the field procedure for the specific return code generated.

00E60A0B

Explanation: This is a warning code, and does not represent an error. For the corresponding data row with this reason code in field QW0185RC, a date or time column value was returned in the ISO format, even though the date/time installation option was specified as LOCAL. Invocation of local date and time exits is not supported for captured data. This reason code does not apply to the success or failure of the IFI request, but to the status of the data in the IFCID 0185 record.

This abend code is issued by the following CSECT:
 DSNXRDCD

System Action: A date or time column value was returned in the ISO format even though the installation option was specified as LOCAL.

Programmer Response: The requester needs to be aware that a date or time was returned in ISO format since the LOCAL date and time installation option,

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which was in effect at the time of capture, is not supported for data capture.

00E60B01

Explanation: An installation field procedure wrote beyond the end of the output buffer.

This abend code is issued by the following CSECT: DSNXR CDC

System Action: The execution unit requests an SVC dump, and terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the field procedure. See the Field Procedures in Appendix B (Volume 2) of *DB2 Administration Guide*.

Problem Determination: At the time of abend the register contents are:

- | | |
|-----------|-----------------------------------------------------|
| R2 | The first 4 characters of the field procedure name |
| R3 | The second 4 characters of the field procedure name |

00E60B02

Explanation: Invalid data was returned from the edit procedure. The data is invalid for one or more of these reasons:

- The first byte or the last byte of the input record was modified by the exit.
- The length of the edited data is greater than the maximum allowed for this row, or less than one.
- The exit returned a row that overran the output area.

This abend code is issued by the following CSECT: DSNILEDR

System Action: An execution unit requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E60B03

Explanation: An internal inconsistency was detected by DB2 during data propagation processing.

This abend code is issued by the following CSECTs: DSNXIBCD, DSNXIBCL, DSNXIBC2, DSNXIBGE

System Action: An execution unit requests an SVC dump. The execution unit then terminates abnormally.

Operator Response: Notify the system programmer.

Problem Determination: At the time of abend,

register 2 points to the error message. Collect the following diagnostic items listed in Appendix B, "Problem Determination": 1, 2, 5.

00E60B04

Explanation: During the retrieval of captured table data in preparation for propagation to IMS, an invalid data type was found. This data type is not supported for propagation from DB2 to IMS. Since the invalid data type cannot be returned to the Data Propagator (DPROP) exit routine, processing is terminated abnormally. This is an internal DB2 error.

This abend code is issued by the following CSECT: DSNXR CDC

System Action: An execution unit requests an SVC dump, and terminates abnormally.

Operator Response: Notify the system programmer.

System Programmer Response: The current SQL statement performed an INSERT, UPDATE, or DELETE, for a DB2 table that was defined with DATA CAPTURE CHANGES. The captured data changes are reflected in the DB2 log.

Check the captured table data information returned to DPROP for propagation to determine which data type is invalid.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Chapter 52. X'E7.....' codes

00E70004

Explanation: An inconsistency has been detected in the subsystem catalog tables.

This abend reason code is issued by the following CSECTs: DSNXOCK, DSNXOLV

System Action: The application program abends.

Operator Response: Notify the system programmer or database administrator.

System Programmer Response: Notify the database administrator if appropriate. Otherwise, use the information under the Problem Determination section to resolve the problem.

Problem Determination: The module name and the name of the inconsistent subsystem catalog table can be found in the SQLCA. Refer to Part 3 of *DB2 Diagnosis Guide and Reference* for information about how to find the SQLCA.

Register 7 is the cursor table pointer and is always restricted entirely over the relational data system (RDS) subcomponent.

Dump the page set containing the inconsistent subsystem catalog using the DUMP option of the REPAIR utility.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 48.

00E70005

Explanation: A relational data system (RDS) subcomponent internal inconsistency was detected.

This abend reason code is issued by the following CSECTs: Any of the RDS modules

System Action: The application program abends.

Operator Response: Notify the system programmer.

System Programmer Response: This code generates an SVC dump and SYS1.LOGREC entries. Use information from those two sources and from the Problem Determination section of this code to resolve the problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The abend code can be issued by any of the RDS modules. The module name can be found in the SQLCA. SQLERRD1 in the SQLCA contains a unique code that identifies the location within the module where the error was detected. SQLERRM might contain some meaningful information for this particular error.

Refer to Part 3 of *DB2 Diagnosis Guide and Reference* for information about how to find the SQLCA.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 14.

00E70006

Explanation: An internal inconsistency has been reported to the relational data system (RDS) subcomponent by the RDS subcomponent of DB2.

This abend reason code is issued by the following CSECTs: Any of the RDS interpreter modules

System Action: The application program abends.

User Response: Notify the system programmer.

Operator Response: Provide a print of the SVC dump to the system programmer.

System Programmer Response: Use the information in the 'Problem Determination' section of this message to resolve the problem.

Problem Determination: The abend code may be issued by any of the RDS interpreter modules (DSNX...). The module name appears in the SQLCA. SQLERRD1 in the SQLCA contains a unique code that identifies the location within the module at which the error was detected. SQLERRM contains information describing the particular error.

Refer to Part 3 of *DB2 Diagnosis Guide and Reference* for information about how to find the SQLCA.

Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 2.

00E70007

Explanation: A bad application-supplied address was encountered while trying to copy SQLCA back to the application program.

This abend reason code is issued by the following CSECT: DSNXERD

System Action: The application program abends.

System Programmer Response: Contact the application programmer.

Problem Determination: The register contents at the time of abend are as follows:

R2	A decimal code identifying the data:
1	FRB address is bad.
2	FRBPARM has the bad address used to locate the RDIIN.
18	RDICODEP has the bad address used to locate the SQLCA.

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- R3** The bad application data area address.
R4 The length of the data.
R5 The key of the data or the address of the CT if the SQLCA contains SQLCODE -902.
R8 The address of the FRB in the application address space (RDIIN) or the address of the RDA if the SQLCA contains SQLCODE -902

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4 or 23.

00E70009

Explanation:

An invalid value or a return code (EXPLRC1) of 12 was returned by the Access Control Authorization exit routine, DSNX@XAC.

System Action:

The authorization check is abended. An SVC dump is requested by DB2 functional recovery. If EXPLRC1=12, then the Access Control Authorization exit routine is no longer invoked and authorization checking is performed by DB2.

Operator Response:

Notify the system programmer.

System Programmer Response:

If message DSNX210I has been issued to the System Console, retrieve the return code (EXPLRC1) and reason code (EXPLRC2) from this message and refer to the exit routine's documentation to determine the course of action to be taken.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination:

The abend with this reason code is issued because the access control authorization exit routine returned an invalid value in one of the return fields or returned a return code (EXPLRC1) of 12. The register contents at the time of abend are set as follows:

- Register 3 points to the field that has the invalid value. This field may be in the EXPL or XAPL control block. The control block eye catcher will enable you to distinguish between the two.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSNXACAE

00E7000A

Explanation: A relational data system (RDS) subcomponent abended because one or more parallel tasks abended.

System Action: The application program abends.

Operator Response: Notify the system programmer.

System Programmer Response: Use the information in the Problem Determination section of this message to resolve the problem.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend code is issued by the RDS modules that detect abends of other parallel tasks.

This abend reason code is issued by the following CSECTs: DSNXRGF, DSNXRGN

00E7000C

Explanation: The application program supplied an invalid address.

DSNXECIDSNXEDDSNXRIBSNXRODSNXERTDSNXEVPN
DSNXRODSNXEAIDSNXELODSNXEPM

System Action: The application program abends.

User Response: Correct the invalid address. See Problem Determination for instructions on how to determine the failing SQL statement and the bad address. Use this information to determine the application's incorrect setting of the address. For further information, refer to Part 5 of *DB2 Application Programming and SQL Guide*.

Operator Response: Notify the user or system programmer.

System Programmer Response: Assist the user in determining the invalid address.

Problem Determination:

At the time of abend the register contents are:

- R2** A decimal code identifying the bad data:
- 1 (1)** The bad FRB address used to locate the FRBPARM.
 - 2 (2)** FRBPARM has the bad address used to locate the RDIIN.
 - 3 (3)** RDIVPARM has the bad address used to locate the SQLDA length.
 - 4 (4)** RDIVPARM has the bad address used to locate the SQLDABC.

- 5 (5)** RDIVPARM has the bad address used to locate the SQLDA length.
- 6 (6)** RDIAUXPA has the bad address used to locate the SQLDA length.
- 7 (7)** RDIAUXPA has the bad address used to locate the SQLDABC.
- 8 (8)** PVDPTR has the bad address used to locate the data variable.
- 9 (9)** PVINFO has the bad address used to locate the indicator variable.
- 10 (A)** Either RDIVPARM or RDIAUXPA has the bad address used to locate the PVARs structure.
- 11 (B)** RDIAUXPA has the bad address used to locate the SQLN.
- 12 (C)** RDIAUXPA has the bad address used to locate the SQLDAID.
- 13 (D)** RDIAUXPA has the bad address used to locate the SQLDABC.
- 14 (E)** RDIAUXPA has the bad address used to locate the SQLD.
- 15 (F)** RDIAUXPA has the bad address used to locate the SQLVAR.
- 16 (10)** PVINFO has the bad address used to locate the indicator variable.
- 17 (11)** PVDPTR has the bad address used to locate the data variable.
- 18 (12)** PVDPTR has the bad address used to locate the data variable.
- 19 (13)** PVDPTR has the bad address used to locate the data variable.
- R3** The bad data address.
- R4** The length of the data.
- R5** The key of the data.
- R8** If register 2 = 8 or 9, R8 contains the address of the RDIVPARM. If register 2 = 16 or 17, R8 contains the address of the RDIAUXPA. Otherwise, R8 contains the address of the RDIIN. This is the application's invocation parameter list. The address of the RDIIN may not be valid if the RDIIN could not be located (Register 2 = 1 or 2).

The program name identifies the failing program. The statement number refers to the statement number in the DB2 precompiler listing. The SQL statement executed can then be found in the application program's compiler/assembler listing. For example, if the statement number is X'00E6', refer to statement number 230 in the DB2 precompiler listing. This precompiler statement number can be cross-referenced to the program's compiler/assembler listing.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4 or 23.

Use the following offsets to trace through the control blocks.

PVARs:

Offsets	Len	Description
0 (0)	4	LENGTH OF BLOCK
4 (4)	12	PVENTY, OCCURS ONCE FOR EACH HOST VARIABLE IN THE SQL STATEMENT

PVENTRY:

Offsets	Len	Description
0 (0)	2	COLUMN TYPE
2 (2)	2	COLUMN LENGTH
4 (4)	4	PVDPTR, POINTER TO HOST VARIABLE DATA
8 (8)	4	PVINFO, POINTER TO INDICATOR

FRB:

Offsets	Len	Description
0 (0)	4	BLOCK IDENTIFIER "FRB"
4 (4)	2	RAL ENTRY NUMBER
6 (6)	2	FVL ENTRY NUMBER
8 (8)	4	FRBPARM, POINTER TO PARAMETER LIST (RDIIN)
12 (C)	2	PARAMETER COUNT
14 (E)	2	RETURN CODE
16 (10)	4	REASON CODE
20 (14)	4	FEEDBACK
24 (18)	4	PRH PC LX/EX VALUE
28 (1C)	2	REQUEST QUALIFIER VALUE
30 (1E)	2	RESERVED
32 (20)	0	END OF USER FRB SECTION

RDIIN:

Offsets	Len	Description
0 (0)	2	PARAM LIST LENGTH
2 (2)	2	FLAGS
4 (4)	2	CALL TYPE
6 (6)	8	PROGRAM NAME
14 (E)	8	TIMESTAMP
22 (16)	2	SECTION #
24 (18)	4	PTR TO ERROR CODE STRUCTURE

Offsets	Len	Description
28 (1C)	4	RDIVPARAM PTR TO USER INPUT VARIABLES (PVAR STRUCTURE)
32 (20)	4	RDIAUXPA PTR TO DB2 RETURN VARIABLES (PVAR STRUCTURE)
36 (24)	2	STATEMENT #
38 (26)	2	STATEMENT TYPE

00E7000F

Explanation: A deadlock condition has been detected.

This abend reason code is issued by the following CSECT: DSNXIDPM

System Action: The requested operation is not performed.

User Response: Rerun the application.

System Programmer Response: If the deadlock condition becomes chronic, examine the mix of applications running to determine why the deadlock is occurring.

Problem Determination: The requested operation is not performed. Message DSNT375I is issued and an SQLCODE -904 is issued. For more information, refer to the SQL code or to the description of the DSNT375I message.

00E70010

Explanation: A timeout condition has been detected.

This abend reason code is issued by the following CSECT: DSNXIDPM

System Action: The requested operation is not performed.

User Response: Rerun the application.

Problem Determination: The requested operation is not performed. Message DSNT376I is issued and an SQLCODE -904 is issued. For more information, refer to the SQL code or to the description of the DSNT376I message.

00E70011

Explanation: During an authorization check for plan or command authorization, an execution unit switch took place to a new execution unit and the new execution unit abended.

This abend reason code is issued by the following CSECTs: Any module that invokes the DSNXCHK macro

System Action: The calling execution unit is also abended.

Operator Response: Notify the system programmer. Print SYS1.LOGREC. Also print the dump from any previous dump data set if the failing module name is DSNXACKP or the dump title is 'RDS AUTHCHK'.

System Programmer Response: See problem determination and if you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The module issuing this abend reason code has invoked the DSNXCHK macro to perform an authorization check for either the application plan or the command authorization. The DSNXCHK macro does a cross-memory execution unit switch to module DSNXACKP. Look for a previous dump in which the failing module name is DSNXACKP, the dump title is RDS AUTHCHK, or the failure is an allocation failure.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00E70012

Explanation: A user exit has written beyond the end of the output buffer.

This abend reason code is issued by the following CSECTs: DSNXRPPC, DSNXVTRS

System Action: The application program abends.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the exit routine. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: At the time of abend the register contents are:

- R2 contains the first 4 characters of the exit routine name.
- R3 contains the next 4 characters of the exit routine name.

If the exit routine name is DSNXVDTX then DECPDLEN contains the LOCAL DATE LENGTH specified on the DB2 Installation Application Programming Defaults Panel. The exit routine wrote beyond this length in returning a local date format to DB2.

If the exit routine name is DSNXVTMX then DECPTLEN contains the LOCAL DATE LENGTH specified on the DB2 Installation Application Programming Defaults Panel. The exit routine wrote beyond this length in returning a local time format to DB2.

00E70013

Explanation: DRDS at the server site supplied an invalid address.

This abend reason code is issued by the following CSECTs:

DSNXECP DSNXEDC DSNXRIVB DSNXROUT

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5, 14.

00E70014

Explanation: DB2 could not validate the data definition control support tables during startup.

System Action: The requested operation is not performed.

Operator Response: Notify the system programmer.

System Programmer Response: Provide a print of the SVC dump to the system programmer. Use the information in the 'Problem Determination' section. The data definition control support tables could not be validated. No data definition SQL statements can be executed until these tables can be validated.

Register 2 contains the address of a message that indicates the reason for the problem. DB2 startup continues. Correct the problem if it still exists. DB2 will attempt to validate the data definition control support tables when the user attempts to execute any data definition SQL statements.

Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 2, 5, 14.

00E70015

Explanation: DB2 was abnormally terminated because the Access Control Authorization exit has indicated that it is unable to process authorization checks and that DB2 should be terminated.

System Action: The authorization check task is abended. An SVC dump is requested by DB2 functional recovery. A message is issued to the operator console, and DB2 is terminated.

System Programmer Response: Use the information in the 'Problem Determination' section of this message to resolve the problem.

Problem Determination: Locate operator console message DSNX210I. This message has the return and reason codes from the exit. Since the Access Control Authorization exit (DSNX@XAC) is external to DB2, you will need to refer to its documentation for an explanation of these codes and a resolution to the problem.

00E70069

Explanation: An installation error was detected while the CICS Attachment Facility was attempting to establish the connection to DB2 for your CICS transaction. This error can be caused by one of the following:

- The current CICS transaction identifier was not found in any of the resource control table (RCT) entries.
- A valid authorization name was not found using the RCT entry for this CICS transaction. The AUTH= parameter in the RCT specifies up to three sources for authorization checking. None of these yielded a valid name for checking. For example, the RACF group might have been specified, but the user was not a member of any RACF group. Or terminal identifier might have been specified, but the transaction was being run without a terminal.

This abend reason code is issued by the following CSECT: DSNCEXT1

System Action: The request is not processed.

System Programmer Response: Check the RCT table specifications for this transaction to determine if they are missing or incorrect. If modification is needed, change the RCT source and install the RCT again. Refer to Chapter 2-10, "Connecting the CICS Attachment Facility," of *DB2 Administration Guide* for more information.

Problem Determination: You might be able to use the DSNCL DISPLAY command to check for the existence of an RCT entry for this transaction. If an entry exists, refer to the RCT source. Look at the AUTH= parameter list and determine why CICS was unable to establish a valid authorization name for checking.

00E7006A

Explanation: While processing your request, the IMS Attachment Facility could not identify the DB2 subsystem. The DB2 identification must be defined to the IMS control region, the DL/I batch region, and any dependent region accessing the DB2 subsystem.

This abend reason code is issued by the following CSECTs: DSNMSNO0, DSNMERR0

System Action: The connection is not established.

System Programmer Response: To make the identification to the IMS regions, you must create a subsystem member (SSM) in the IMSVS.PROCLIB library and identify the SSM to the applicable IMS

regions. Refer to Chapter 2-9, "Connecting the IMS Attachment Facility," of *DB2 Administration Guide* for more details.

00E7006B

Explanation: The CICS or IMS Attachment Facility detected that a shutdown was in progress for the DB2 subsystem while processing your request. This might occur during initial connection processing or during subsequent requests, depending on the type of DB2 shutdown.

This abend reason code is issued by the following CSECTs: DSNCEXT1, DSNMERR0

System Action: The connection is not established.

User Response: Before you can continue, you must restart the DB2 subsystem. Contact the operator to restart the subsystem, and then resubmit your transaction.

Operator Response: Restart the DB2 subsystem.

00E70081

Explanation: A DROP or ALTER statement was issued but the object cannot be dropped or altered. The object is referenced by a prepared dynamic SQL statement that is currently stored in the prepared statement cache and is in use by an application.

This reason code is issued by the following CSECT: DSNXIDMH

System Action: The requested operation is not performed.

Programmer Response: The requested operation cannot be performed until there are no applications that reference the object using dynamic SQL. Ensure that other applications have quiesced or performed a commit operation. Then try the request again.

Problem Determination: An SQLCODE -904 is issued. The message tokens for that message report the name and type of the object that was being referenced by another application.

00E70082

Explanation: The user has reached the maximum number of outstanding stored procedures or opened cursors for the current thread.

System Action: No additional stored procedures may be invoked, and no more cursors are allowed to be opened.

Programmer Response: Applications should close cursors as soon as possible, and should issue COMMIT often to allow the stored procedure result set to be cleared.

00E7009A

Explanation: A DECLARE GLOBAL TEMPORARY TABLE statement or OPEN CURSOR (of a scrollable cursor) was issued, but the operation cannot be performed due to one of the following reasons:

- A TEMP database has not been created yet.
- A table space has not been created in the TEMP database yet.
- No table space in the TEMP database has a page size that is large enough for the declared global temporary table.
- No table space in the TEMP database has a page size of at least 8K.

System Action: The operation is not allowed.

Operator Response: Notify the system programmer.

System Programmer Response: To perform the operation, you must create the required TEMP database or create a table space with a large enough page size.

Problem Determination: The requested operation is not performed. An SQLCODE -904 is issued. For more information, refer to Part 2, "SQL return codes," on page 11.

00E7009B

Explanation: An invalid operation has been attempted on an incomplete table that was created in a previous release of DB2. The table definition is incomplete due to a missing unique index on a primary key or unique key.

The following DDL operations are not allowed:

- ALTER TABLE
- CREATE INDEX
- DROP INDEX

System Action: DB2 does not process the operation.

Operator Response: Notify the system programmer.

System Programmer Response: In order to perform the operation on the object, you must use the release of DB2 in which the table was created.

Problem Determination: DB2 does not perform the requested operation, and issues SQL code -904. For more information, refer to Part 2, "SQL return codes," on page 11.

00E7009C

Explanation: An attempt was made to execute a statement that depends on an unavailable catalog object. The catalog object will be available after the catalog is updated to the necessary level.

System Action: The operation is not allowed.

Operator Response: Notify the system programmer.

System Programmer Response: In order to perform the operation, you must update the catalog to the required level. To do this, run install job DSNTIJTC. For more information about this job, see Part 2 of *DB2 Installation Guide*.

Problem Determination: The requested operation is not performed. SQLCODE -904 and message DSNT5011 are issued. For more information, refer to Part 2, "SQL return codes," on page 11 or to the description of the DSNT5011 message in Chapter 18, "DSNT... Messages," on page 417.

00E7009D

Explanation: The code level of the DB2 catalog is incompatible with the current code level of:

- A DB2 subsystem that is starting, or
- A datasharing group

System Action: DB2 cannot start. Message DSNX208E or DSNX209E is displayed on the system console to describe the problem. An SVC dump is requested for the DSNX208E problem.

Operator Response: Notify the system programmer.

System Programmer Response: Before DB2 can start, each DB2 subsystem must use a level of code that is compatible with the catalog.

Problem Determination: DB2 does not start. Message DSNX208 or DSNX209 display a reason code or level information that helps with problem diagnosis.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 16, 69.

00E7009E

Explanation: The object is dependent on facilities of a release of DB2 that is newer than the release that you are currently running (fall back).

This abend reason code is issued by the following CSECTs:

DSNXIAIX	DSNXIATB	DSNXIATS	DSNXICIX
DSNXICTB	DSNXIDIX	DSNXIDTB	DSNXIDTS
DSNXOCA	DSNXOLV		

System Action: The operation is not allowed.

Operator Response: Notify the system programmer.

System Programmer Response: In order to perform the operation on the object, you must use the release of DB2 that supports the new facilities.

Problem Determination: The requested operation is not performed. An SQLCODE -904 and/or message DSNT5011 is issued. Message DSNT5011 describes which object has the release dependency.

00E7009F

Explanation: An error occurred while loading the catalog DBD during start-up processing.

System Action: If message DSNX204I is issued to the console, DB2 is started ACCESS(MAINT). Otherwise, the current START command processing is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain copies of SYS1.LOGREC and the SVC dump. If message DSNX204I was issued to the console, see the description of that message.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Register 2 points to a character string that describes the specific error encountered.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNXLDBD

00E700A6

Explanation: Failure in DB2 code supporting LE.

System Action: The application program abends.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer. Print SYS1.LOGREC.

System Programmer Response: See problem determination and if you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination:

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00E700A7

Explanation: LE returned an unexpected return code to DB2.

System Action: The application program abends.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer. Print SYS1.LOGREC.

System Programmer Response: See problem determination and if you suspect an error in DB2, refer to Section 3 of *Diagnosis Guide and Reference* for

information on identifying and reporting the problem.

Problem Determination: At the time of abend, register R2 contains two bytes of the function code presented to LE, followed by two bytes of the unexpected return code sent back to DB2 from LE.

Confirm DB2 is running with the correct release of LE with the required service level. Refer to the Program Directory to determine the minimum level of OS/390 and LE and fixes that are required.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00E70100

Explanation: This is an internal RDS error. The SQLWARN0 field does not contain a valid value while determining SQLSTATE field value. SQLWARNx fields are described in Appendix C of *DB2 SQL Reference*.

This abend reason code is issued by the following CSECTs: DSNXERD, DSNXEEZ

System Action: The application program ABENDs.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. procedures.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E70105

Explanation: This is an internal RDS error. One of the SQLWARNx fields does not contain a valid value while determining SQLSTATE field value. SQLWARNx fields are described in Appendix C of *DB2 SQL Reference*.

This abend reason code is issued by the following CSECTs: DSNXERD, DSNXEEZ

System Action: The application program ABENDs.

Operator Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 1, 5.

00E70106

Explanation: DB2 received a functional request and encountered an internal authorization error. The function cannot be processed.

System Action: The function is rejected with this reason code. If the request was SQL, then the SQLCODE is -922.

Operator Response: Notify the system programmer.

System Programmer Response: Please call the IBM Support Center to resolve this problem.

00E70110

Explanation: The commit failed because the application was not connected to the Current Server.

This abend reason code is issued by the following CSECT: DSNXECW

System Action: The reason code or SQLCODE -900 is returned to the application which is in an unconnected state.

User Response: A previous failure has left your application in an unconnected state . Notify the system programmer that a system failure occurred during execution of your application. Any changes made in the last unit of work is rolled back. Re-run your application after determining the state of the Current Server database.

Operator Response: For Communication failure, refer to DSNL500I message.

System Programmer Response: Diagnose the failure that left the user application in an unconnected state. See "Problem Determination" section below.

Problem Determination: Refer to the previous SQL error in the application.

00E70115

Explanation: The unit of work was placed in a state where a rollback operation is required. This can happen when an abend occurs during the execution of a stored procedure, a user defined function (UDF), or a restricted SQL operation was issued from a stored procedure.

This item is issued by the following CSECT: DSNXECW.

System Action: In the IMS and CICS environments, all SQL statements are rejected until the rollback occurs. In the other environments, all SQL statements other than a static ROLLBACK are rejected until a static ROLLBACK is executed.

Programmer Response: Correct the stored procedure or UDF, rebind it and resubmit the calling application.

00E70121

Explanation: User ID, password not valid in an IMS or CICS environment. An SQL CONNECT with user ID, password was issued from an IMS or CICS application.

System Action: The SQL CONNECT request is not processed. The application is placed in the connectable and unconnected state.

00E70122

Explanation: The user ID or password submitted on a request to CONNECT to the local DB2 exceeded the maximum length supported. The maximum length for each is 8 characters.

System Action: The SQL CONNECT request was not processed. The application is placed in the connectable and unconnected state.

00E70911

Explanation: The current unit of work was the victim in a deadlock, or experienced a timeout, and had to be rolled back. RC00E70911 is the same as the SQLCODE -911. For more information, refer to the SQL return code.

This abend reason code is issued by the following CSECTs: DSNCEXT3, DSNMDR10

System Action: The statement cannot be executed. The application is rolled back to the previous COMMIT.

Operator Response: Notify the system programmer.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00E70913

Explanation: The application was the victim in a deadlock or experienced a timeout. RC00E70913 is the same as the SQLCODE -913. For information, refer to the SQL return code.

This abend reason code is issued by the following CSECT: DSNXEEZ

System Action: The statement cannot be executed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem

determination," on page 1353: 1, 5.

00E72008

Explanation: The relational data system (RDS) sort subcomponent has determined that there is not enough storage to continue the sort process.

This abend reason code is issued by the following CSECTs:

DSNXSORI DSNXSTS DSNXSTSE DSNXSTSG

System Action: The application program abends.

Operator Response: Notify the system programmer.

System Programmer Response: The CT is formatted and a return code with a value of 8 is returned from the sort subcomponent to indicate a resource was unavailable. Check the SYSOUT message file for any errors detected by the sort subcomponent.

00E72018

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECTs:

DSNXSIN DSNXSINE DSNXSING DSNXSMR
DSNXSMRE DSNXSMRG DSNXSORI DSNXSSFE
DSNXSTM DSNXSTRG DSNXSTS DSNXSTSE
DSNXSTSG DSNXSWFM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The sort subcomponent has detected an internal inconsistency. The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SRTCOMM.
- R3 is a unique decimal code that identifies the error location and error type.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E72048

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECT: DSNXSORI

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The sort subcomponent has detected an internal inconsistency. The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SPL.
- R3 is an unique decimal code that identifies the error location and error type.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E72058

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECTs:

DSNXSMR DSNXSMRE DSNXSMRG

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The sort subcomponent has detected that the number of unsorted records input to sort did not equal the number of sorted records returned by sort minus the number of records removed from the sort by the evaluation of aggregate functions. The precise problem can be determined only by analyzing the abending module at the point of failure. The register

contents at the time of abend are set as follows:

- R2 points to the SRTCOMM.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E72068

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECTs: DSNXSMR, DSNXSMRG

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The sort subcomponent has detected an internal inconsistency in the merge process. The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are: R2 points to the SRTCOMM.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E72078

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECTs: DSNXSMR, DSNXSMRG

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The Sort subcomponent has detected a sort work file management inconsistency in the merge process. The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SPL.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E72088

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECTs:

DSNXSIN DSNXSINE DSNXSMR DSNXSMRE
DSNXSMRG DSNXSORI DSNXSWFM

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The sort subcomponent has detected an error from the Data Manager. The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SRTCOMM.
- R3 is a unique decimal code that identifies the error location and error type of the Data Manager request that failed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E72098

Explanation: The relational data system (RDS) sort subcomponent has detected an internal inconsistency.

This abend reason code is issued by the following CSECT: DSNXSORI

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error. Refer to Part 2 of *DB2 Diagnosis Guide*

and *Reference* for information on identifying and reporting the problem.

Problem Determination: The sort subcomponent has detected an invalid request for tag sort processing. The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SRTCOMM.
- R3 is a unique decimal code that identifies the error location and error type.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00E72100

Explanation: DB2 detected an internal inconsistency in sort during parallel query processing.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested.

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

System Programmer Response: This is a DB2 internal error.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SRTCOMM.
- R3 is a unique decimal code that identifies the error location and error type.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs:

DSNXSMRE DSNXSORI DSNXSPKY DSNXSPNS
DSNXSPWF DSNXSTSE

00E72200

Explanation: DB2 detected an internal inconsistency in sort during parallel query processing. This is a DB2 internal error.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

00E73001 • 00E79001

Operator Response: Notify the system programmer. Provide a print of the SVC dump to the system programmer.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The precise problem can be determined only by analyzing the abending module at the point of failure. The register contents at the time of abend are set as follows:

- R2 points to the SPL.
- R3 is a unique decimal code that identifies the error location and error type.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECT: DSNXSPRM

00E73001

Explanation: The level of z/OS that was required for the SQL statement or DB2 utility is not currently installed. The SQL statement or utility could not be executed.

System Action: For a SQL statement, the statement is rejected with SQLCODE -20101 and this reason code. For a utility, the utility is rejected with message DSNT500I and this reason code.

System Programmer Response: Refer to the *IBM DATABASE 2 Universal Database for z/OS Program Directory* to determine the minimum level of z/OS that is required for the syntax that was used in the statement or utility.

00E73002

Explanation: The SQL statement could not be executed because of a resource unavailable condition. The resource is LE/370.

System Action: The SQL statement is rejected with SQLCODE -20101 and this reason code.

System Programmer Response: Refer to the system console for preceding errors. Correct the cause of these errors and restart the DB2 subsystem.

00E73003

Explanation: The SQL statement could not be executed because the statement needed a level/feature of OS/390 that is not installed. DB2 attempted to load a required LE/370 load module and was unable to do so.

System Action: The SQL statement is rejected with SQLCODE -20101 and this reason code.

System Programmer Response: Refer to the Program Directory to determine the minimum level of OS/390 that is required for the syntax used in the statement.

00E73004

Explanation: The SQL statement could not be executed because of a resource unavailable condition. The resource was an LE token.

System Action: The SQL statement is rejected with SQLCODE -20101 and this reason code.

System Programmer Response: Refer to the system console for preceding errors. Confirm that the zparm keyword LEMAX is greater than zero. If the problem is persistent, consider increasing the number of LE tokens that the DB2 subsystem is allowed to create. See the Installation Guide for more information on LE tokens.

00E73005

Explanation: The SQL statement or utility operation could not be completed because a hardware resource is not available.

System Action: The SQL statement is rejected with SQLCODE -20107 or the utility issues message DSNT500I and terminates.

System Programmer Response: Examine the -20107 or DSNT500I message to identify the type of hardware resource that is not available. Refer to *DB2 Program Directory, GI10-8182* to determine the minimum level of hardware support that is needed for the syntax used in the statement or utility.

00E79000

Explanation: DB2 received an SQL CALL statement for a stored procedure. The CALL statement was not accepted because one or more columns of the SYSIBM.SYSROUTINES catalog table for the procedure contains invalid values.

System Action: The statement cannot be executed. A DSNX9xx message is displayed on the MVS system console to describe the error that was detected.

Programmer Response: Use ALTER PROCEDURE or ALTER FUNCTION to correct the invalid column values in the SYSIBM.SYSROUTINES table.

00E79001

Explanation: DB2 received an SQL CALL statement for a stored procedure or an SQL statement containing an invocation of a user-defined function. The statement was not accepted because the routine was stopped. Possible reasons are:

- the STOP PROCEDURE ACTION(REJECT) command was issued for this procedure, or

- the STOP FUNCTION ACTION(REJECT) command was issued for this user-defined function, or
- there was a previous abnormal termination of the routine.

System Action: The statement cannot be executed.

Programmer Response: If the user-written routine was stopped by an abnormal termination, correct the cause of the abnormal termination.

Use the -START PROCEDURE command to activate the stored procedure.

Use the -START FUNCTION command to activate the user-defined function.

Problem Determination: This reason code is issued by the following CSECTs: DSNX9CCM, DSNX9GPL.

00E79002

Explanation: DB2 received an SQL CALL statement for a stored procedure or an SQL statement containing an invocation of a user-defined function. The statement was not accepted because the procedure could not be scheduled before the installation-defined time limit expired. This can happen for any of the following reasons:

- The DB2 STOP PROCEDURE(name) or STOP FUNCTION SPECIFIC command was in effect. When this command is in effect, a user-written routine cannot be scheduled until a DB2 START PROCEDURE or START FUNCTION SPECIFIC command is issued.
- The user-written routine could not be assigned to a TCB in the DB2-established stored procedures address space in the required time interval, because all available stored procedure TCBs were in use.
- The DB2-established stored procedures address space dispatching priority is low, resulting in delays when processing stored procedure requests. If the delays become excessive, the TCBs in the stored procedure address space do not become available to process new SQL CALL statements in a timely manner.
- The dispatching priority assigned by WLM to the caller of the user-written routine was low, which resulted in WLM not assigning the request to a TCB in a WLM-established stored procedure address space before the installation-defined time limit expired.
- The WLM application environment is quiesced so WLM will not assign the request to a WLM-established stored procedure address space.
- WLM is being used in compatibility mode, and the needed stored procedure address space has not been started using the MVS START command.

System Action: The statement cannot be executed.

Programmer Response: If the routine was stopped,

use the DB2 -START PROCEDURE or -START FUNCTION command to activate the user-written routine.

If the DB2-established stored procedures address space was to be used, the cause of the timeout condition might be one of the following:

- Stored procedure or user-defined function applications might not be completing. If this occurs, the TCB used to process the stored procedure will not become available to process new stored procedure requests.
Use the -DISPLAY PROCEDURE and -DISPLAY FUNCTION commands to determine the number of DB2 threads that are currently running a stored procedure or a user-defined function. If the number of threads seems excessive, use the -DISPLAY THREAD command to look at details about each of the threads.
- If there are not enough stored procedure TCBs available to meet the volume of requests, increase the number of stored procedure TCBs by changing the value of the NUMTCB keyword in the JCL procedure used to start the DB2 stored procedures address space.

If a WLM-established stored procedures address space was to be used, the cause of the timeout condition might be one of the following:

- If goal mode is being used to manage the number of WLM-established stored procedure address spaces, the dispatching priority assigned to the caller of the stored procedure might be too low. If the work is of low priority, WLM might leave it queued for a longer period of time.
- The WLM application environment is quiesced. Issue *MVS WLM DISPLAY,APPLENV=wlmenv* command to verify the status of the application environment. The *MVS WLM VARY APPLLENV=wlmenv,RESUME* command can be used to activate the environment if it is quiesced.
- If compatibility mode is being used to manage the number of WLM-established stored procedure address spaces, then the problem might be that there are not enough address spaces or enough TCBs running in those address spaces to support the number of user-written routines being invoked. You might need to increase the number of address spaces and TCBs. You might also need to improve the dispatching priority of these address spaces to ensure that they are processing the stored procedure requests quickly enough.

00E79004

Explanation: DB2 received an SQL CALL statement for a stored procedure. The stored procedure could not be accepted, because the DB2-established stored procedures address space is not active.

00E79006 • 00E7900C

The DB2-established stored procedures address is not active for any of the following reasons:

- The DB2 module DSNZPARM specified a blank value for the name of the JCL PROC for the DB2-established stored procedure address space.
- The stored procedures address space was cancelled or intentionally terminated by the system administrator.

System Action: The statement cannot be executed.

Programmer Response: DB2 automatically starts the DB2 stored procedures address space during DB2 startup, when a nonblank value is specified for the JCL PROC for the DB2-established stored procedures address space in the DB2 module DSNZPARM. If the DB2-established stored procedures addressspace terminates while DB2 is active, you can issue the -START PROCEDURE(*) command to restart it.

Problem Determination: This reason code is issued by the following CSECTs: DSNX9CAL, DSNX9GPL.

00E79006

Explanation: DB2 received an SQL CALL statement for a stored procedure or an SQL statement containing an invocation of a user-defined function. The statement cannot be honored, because the user-written routine's load module is not compatible with Language Environment preinitialization environment.

System Action: The SQL CALL statement is rejected with SQLCODE -471 and this reason code.

Programmer Response: Ensure the routine is compiled with a level of the compiler which generates a module that can be a target of a Language Environment preinitialization CEEPIPI call. Ensure that the routine is link edited with the Language Environment runtime library.

Verify that the user-written routine is described correctly in SYSIBM.SYSROUTINES as a main or sub program. This failure can occur if the procedure options for the stored procedure indicate it is a sub program and the specification in the catalog indicates it is a main program.

Message DSNX962I will also be displayed on the MVS system console. This message indicates the specific Language Environment preinitialization service that failed and the failing return code.

For the required levels of the compilers, see *DB2 Application Programming and SQL Guide*.

00E79007

Explanation: An attempt to call a DB2 stored procedure or UDF invocation failed because the host language specified in the LANGUAGE clause of CREATE PROCEDURE or CREATE FUNCTION did not match the language reported by LE/370.

System Action: The attempt to call the stored procedure fails, and the procedure is marked STOP-REJ.

System Programmer Response: Use the ALTER FUNCTION or ALTER PROCEDURE statement to correct the LANGUAGE attribute specified for the user-defined function or procedure.

00E79008

Explanation: The SQL CALL statement could not be processed. The SECURITY attribute of the user-defined function or procedure requested that a specific security environment be established. An error occurred while attempting to establish this security environment.

System Action: The SQL CALL statement is rejected with SQLCODE -471 and this reason code.

System Programmer Response: Additional error messages might have been generated by the external security product to describe the error. Use the ALTER FUNCTION or ALTER PROCEDURE statement to modify the SECURITY attribute specified for the user-defined function or procedure.

00E7900B

Explanation: The SQL CALL statement could not be processed. DB2 determined that the user-defined function or procedure was to be run in a specific WLM-established address space, but the necessary WLM services are not available.

The user-defined function or procedure specified a non-blank WLM ENVIRONMENT attribute.

System Action: The SQL CALL statement is rejected with SQLCODE -471 and this reason code.

Programmer Response: Use the ALTER FUNCTION or ALTER PROCEDURE statement to modify the WLM ENVIRONMENT attribute specified for the user-defined function or procedure, or specify the NO WLM ENVIRONMENT clause.

System Programmer Response: Issue the START FUNCTION SPECIFIC or START PROCEDURE command to allow the altered user-defined function or procedure to be called.

00E7900C

Explanation: SQL CALL statement or user-defined function invocation could not be processed. The WLM application environment name specified for the user-written routine is not defined or is currently not available for DB2 use in the active WLM policy.

System Action: The SQL statement is rejected with SQLCODE -471 and this reason code.

Programmer Response: Use the -ALTER PROCEDURE or -ALTER FUNCTION command to

update the WLM ENVIRONMENT to specify an application environment that is defined and active in the active WLM policy, or update the WLM policy to contain a valid application environment name.

If the WLM policy definition is updated, use the MVS WLM VARY command to activate this new definition.

If the WLM application environment is quiesced, use the MVS WLM VARY APPLENV= applenv, RESUME command to activate the application environment.

00E7900E

Explanation: SQL CALL statement or user-defined function invocation could not be processed. The routine was invoked by another stored procedure or user-defined function which had the opposite characteristic of being WLM-managed or DB2-managed from this routine. Nesting is not allowed between DB2-managed stored procedures and WLM-managed stored procedures or user-defined functions.

System Action: The SQL statement is rejected with SQLCODE -471 and this reason code.

Programmer Response: Use the ALTER PROCEDURE command to change the attribute to NO WLM ENVIRONMENT, or alter the invoking routine to not invoke this one.

00E7900F

Explanation: Insufficient storage space available for the parameter list to a user-defined function or stored procedure. This error is caused by a single parameter or a group of parameters requiring more contiguous storage than DB2 can obtain.

System Action: The SQL statement is rejected with SQLCODE -904 and this reason code.

Programmer Response: Validate the length of each parameter.

If LOBs are being used, consider using LOB locators instead.

00E79010

Explanation: DB2 received an SQL CALL statement for a stored procedure. The CALL statement was not accepted because one or more columns of the SYSIBM.SYSROUTINES catalog table for the procedure contains invalid values. The value of the column was valid in a prior release of DB2, but is invalid in this release of DB2.

Possible reasons for this include a LANGUAGE column with value COMPJAVA.

System Action: The statement cannot be performed. SQL code -471 is returned on the SQL CALL statement with this reason code.

Programmer Response: Use ALTER PROCEDURE to correct the invalid column in the SYSIBM.SYSROUTINES catalog table.

To migrate a LANGUAGE COMPJAVA stored procedure to LANGUAGE JAVA, use the following procedure:

1. Ensure that you have a WLM application environment that has been set up to run LANGUAGE JAVA.
2. Put the .class file containing the stored procedure code into a directory that is identified in CLASSPATH in the JAVAENV for your LANGUAGE JAVA WLM application environment. Alternatively, you may put the .class file into a Java JAR file and invoke the SQLJ.INSTALL_JAR built-in stored procedure.
3. Issue an ALTER PROCEDURE command against the stored procedure that specifies LANGUAGE JAVA and WLM ENVIRONMENT *java applenv*.

00E79100

Explanation: An internal DB2 error was encountered while processing a stored procedure request.

This abend reason code is issued by the following CSECTs:

DSNX9SER DSNX9STP DSNX9TEX DSNX9WTO.

System Action: The task encountering the error is abended.

User Response: Notify the system programmer.

System Programmer Response: This is a DB2 internal error.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 4.

Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E79101

Explanation: DB2 received an unexpected return code from a WLM service.

System Action: A record is written to SYS1.LOGREC and an SVC dump is requested. The application program abends.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following

CSECTs: DSNX9CAL, DSNX9MON

00E79102

Explanation: An error occurred while attempting a Java Native Interface function to invoke a Java stored procedure.

System Action: The SQL CALL statement fails with SQL code -471 and reason code 00E79102.

Programmer Response: Check the operator console for message DSNX9611. This message contains information about the Java error.

00E79106

Explanation: DB2 could not process an SQL CALL statement for a REXX stored procedure. There were errors associated in setting up an environment to run a REXX stored procedure. See the system console for the associated DSNX993I message.

System Action: The SQL statement fails with this reason code and SQL code -471.

Programmer Response: Use the information provided in the DSNX993I message, and the TSO and REXX messages in ddname SYSTSPRT for diagnosis. You can find TSO and REXX message explanations in *z/OS TSO/E Messages* and *z/OS TSO/E REXX Reference*.

00E79107

Explanation: DB2 tried to load the Java class that is specified by SQLCODE -471 to execute a Java stored procedure. The class was not found.

System Action: The SQL CALL statement fails with SQLCODE -471 and this reason code.

Programmer Response: The third error token in the SQLERRMC field of the SQLCA for SQLCODE -471 contains the class name that was not found. The startup procedure for the stored procedure address space in which the stored procedure runs contains a JAVAENV DD statement that points to a data set. That data set must contain a CLASSPATH variable that includes the path that contains the class name for the stored procedure. The CLASSPATH variable must also include all classes that are referenced by the stored procedure class.

00E79108

Explanation: DB2 tried to load the Java method that is specified by SQLCODE -471 to execute a Java stored procedure. The method was not found.

System Action: The SQL CALL statement fails with SQLCODE -471 and this reason code.

Programmer Response: The third error token in the SQLERRMC field of the SQLCA for SQLCODE -471

contains the user-specified method name and the DB2-generated signature for the method that was not found. If the signature is too long to fit in the SQLERRMC field, the signature is truncated. Left bracket ([]) characters in the signature display as less than (<) characters.

If the first error token in the SQLERRMC field contains the string 'main signature', the method for the stored procedure is a main method, and the stored procedure definition includes parameters with data types other than character data types.

Ensure that the SQL data types of the parameters in the stored procedure procedure definition map to the parameters in the Java method to be invoked.

In z/OS UNIX System Services, run the command `javap -s -private` on the .class file that was used to generate the Java DLL for the stored procedure. The signature of the Java method needs to match the command output.

00E79109

Explanation: A routine was defined to run in a WLM application environment that was not set up correctly for the language that was specified.

Java routines must be run in a WLM application environment that has been set up to run Java routines. This application environment cannot be used to run non-Java routines.

System Action: The SQL CALL statement SQLCODE -471 and this reason code.

Programmer Response: Contact the system programmer

System Programmer Response: Use the ALTER PROCEDURE statement if you need to change the WLM application environment.

To set up a WLM application environment to run LANGUAGE JAVA routines, add a JAVAENV DD statement to the startup procedure for the stored procedure address space. The JAVAENV DD statement specifies a data set that contains environment variables for running Java routines.

00E79200

Explanation: A Control Center 390 stored procedure encountered an unexpected abnormal termination or error condition.

System Action: The Control Center 390 stored procedure terminates, and returns a failing return code to the calling application. The Control Center 390 stored procedure retries from the abnormal termination, so DB2 will not detect that the stored procedure has abnormally terminated. The count of abnormal terminations maintained by DB2 will not be incremented for this abnormal termination.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in Control Center 390, contact IBM support.

Problem Determination: The error is recorded on SYS1.LOGREC, and an SVC dump is requested.

Chapter 53. X'E8.....' codes

00E80001

Explanation: A required parameter was not passed via the MVS MGCR service which started the DB2 address space. The parameter must be the address of SCOM for the system services address space or the address on an ASCE for the database services address space or the distributed data facility address space.

This abend reason code is issued by the following CSECT: DSNYASCP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the parameter value in error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5, 8.

00E80002

Explanation: The DB2 subsystem services address space was not started by a valid subsystem or an error occurred during MVS IEFSSREQ processing.

This abend reason code is issued by the following CSECT: DSNYASCP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of an 8-byte field that contains the following diagnostic information: bytes 1 through 4, the subsystem name; bytes 5 through 8, the contents of register 15 that contains the return code set by the MVS IEFSSREQ macro.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 2, 3, 5, 8.

00E80003

Explanation: An unsupported pending function request was detected during processing in the system services address space.

This abend reason code is issued by the following CSECT: DSNYASCP

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the pending function request value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80004

Explanation: An error occurred when a POST was issued from a resource manager address space to the system services address space in order to indicate that the DB2 subsystem startup function completed successfully.

This abend reason code is issued by the following CSECT: DSNYASCP

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The system services address space might be abnormally terminating.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80005

Explanation: An error occurred when a POST was issued from a resource manager address space to the system services address space in order to indicate that the allied authorization function completed successfully.

This abend reason code is issued by the following CSECT: DSNYASCP

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Probable cause is that the system services address space is abnormally terminating.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80006

Explanation: An unsupported pending function request was detected during processing in the resource manager address space.

This abend reason code is issued by the following CSECT: DSNYASCP

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the pending function request value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8000E

Explanation: MVS was unable to establish an ESTAE for the DB2 address space control task.

This abend reason code is issued by the following CSECT: DSNYASCP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the ESTAE macro return code.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8000F

Explanation: The expected latent parameter passed by the MVS MGCR macro service is invalid. The cause was probably an attempt to start DB2 by some means other than the command -START DB2.

This abend reason code is issued by the following CSECT: DSNYASCP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the parameter value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5, 8.

00E80011

Explanation: MVS was unable to make the address space nonswappable.

This abend reason code is issued by the following CSECT: DSNYASTR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 2, 3, 5, 8.

00E80012

Explanation: An error occurred when a POST was issued from the system services address space to a resource manager address space in order to indicate the results of the MGCR invocation.

This abend reason code is issued by the following CSECT: DSNYASTR

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The resource manager address space might be abnormally terminating.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 2, 3, 5, 8.

00E80013

Explanation: MVS was unable to create a resource manager address space.

This abend reason code is issued by the following CSECT: DSNYASTR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of an 8-byte field that contains the following diagnostic information: bytes 1 through 4, the four character resource manager address space name; bytes 5 through 8, the MGCR return code.

Probable cause is that the MVS auxiliary storage management has inhibited the starting of new address spaces because of a shortage of real storage.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 2, 3, 5.

00E8001F

Explanation: An unsupported function request was detected by the DB2 address space start function.

This abend reason code is issued by the following CSECT: DSNYASTR

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 2, 3, 5.

00E8002F

Explanation: An unsupported function request was detected by the DB2 address space stop function.

This abend reason code is issued by the following CSECT: DSNYASTP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 2, 3, 5.

00E80031

Explanation: An unsupported input parameter was detected for allied address space initialization.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: The caller's task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the parameter value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80032

Explanation: An unsupported input parameter was detected for allied address space termination.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: The caller's task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the parameter value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80033

Explanation: This reason code accompanies a X'04F' system abend code. This module detected that the DB2 subsystem was terminating. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: The caller's task is abended with code X'04F'.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8003C

Explanation: An address space control element (ASCE) could not be located for the executing address space during EOM processing.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: The caller's task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8003D

Explanation: An unrecovered resource (for example, a latch) was detected for a must-complete function.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: Abnormal termination of the DB2 subsystem is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8003E

Explanation: MVS was unable to establish an ESTAE in an address space about to be initialized as a DB2 allied address space.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: The caller's task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8003F

Explanation: An unsupported function request was detected by the allied address space control function.

This abend reason code is issued by the following CSECT: DSNYALLI

System Action: The caller's task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80041

Explanation: An error occurred when a POST was issued from an allied address space to the system services address space in order to indicate a pending allied authorization request.

This abend reason code is issued by the following CSECT: DSNYAUTH

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The system services address space might be abnormally terminating.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80042

Explanation: An error occurred when a POST was issued from the system services address space to a resource manager address space in order to indicate a pending allied authorization request.

This abend reason code is issued by the following CSECT: DSNYAUTH

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The resource manager address space might be abnormally terminating.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8004F

Explanation: An unsupported function request was detected by the allied address space authorization function.

This abend reason code is issued by the following CSECT: DSNYAUTH

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the

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address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80051

Explanation: An error was detected in the command that was used to start the DB2 subsystem. There are two conditions that can cause this error. If the -START DB2 command is in error, this abend results.

Secondly, if the DB2 subsystem is not running (had never been started, or had been stopped), any DB2 command that is entered is interpreted as being a -START DB2 command. In this second case, the subsystem starts just long enough to discover that the command actually is not a -START DB2 command and then issues the abend.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Reenter the command if it was entered in error; otherwise advise the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

This error does not cause a SYS1.LOGREC record to be written or an SVC dump to be requested. A diagnostic tool (for example, MVS SLIP) is required to get subcomponent diagnostic information.

Problem Determination: Register 9 contains the address of a 12-byte field that contains the following diagnostic information: bytes 1 through 4, the address of the buffer that contains the command used to start DB2; bytes 5 through 8, the general command processor return code; bytes 9 through 12, the IPC command processor return code, or 'FFFFFFFF' if bytes 5 through 8 contain a positive value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80052

Explanation: A resource manager provided notification of failure during facility startup notification processing.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the RMID of the resource manager that requested DB2 subsystem termination.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80053

Explanation: A resource manager provided notification of failure during release work notification processing.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the RMID of the resource manager that requested DB2 subsystem termination.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80054

Explanation: The recovery manager (RM) subcomponent provided notification of an error during restart recovery processing.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

and *Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the return code from the recovery manager subcomponent.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80055

Explanation: The recovery manager (RM) subcomponent detected an error during DB2 checkpoint processing.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the return code from the recovery manager subcomponent.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80056

Explanation: During startup, DB2 was unable to access DSN6FAC in ZPARMS and therefore was unable to determine whether the distributed data facility was to be loaded.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Assemble DSN6FAC and re-link-edit the DSNZPARM load module.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 9.

00E80057

Explanation: An error occurred while trying to start a DB2 resource manager address space. A possible cause of this problem would be a JCL error in a start up procedure. Note that the error is probably not in the address space that issued this abend.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 3.

00E80058

Explanation: The version of DB2 that you are attempting to start is not compatible with this version of MVS. This version of DB2 requires a z/Architecture processor running z/OS V1R3 or above.

System Action: The DB2 subsystem is not started.

Operator Response: Notify the system programmer.

System Programmer Response: Change the DB2 start-up procedures to use a version of DB2 that is compatible with the version of MVS that you are using.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00E8005F

Explanation: An unsupported function request was detected by the DB2 subsystem startup control function.

This abend reason code is issued by the following CSECT: DSNYSTRT

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

00E80061 • 00E80081

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80061

Explanation: A resource manager initialization table (RMIT) that has an invalid format was detected.

This abend reason code is issued by the following CSECT: DSNYSDLB

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of an 8-byte field that contains the name of the load module in which the invalid resource manager initialization table (RMIT) format exists.

Probable cause is that the load module does not contain an RMIT or, the linkage editor entry control statement does not specify the RMIT as the module entry point.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8006F

Explanation: An unsupported function request was detected by the definitional control block management function.

This abend reason code is issued by the following CSECT: DSNYSDLB

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8007F

Explanation: An unsupported function request was detected by the application program call parameter management function.

This abend reason code is issued by the following CSECT: DSNYSPCB

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80081

Explanation: An invalid initialization load module list (ILML) was detected.

This abend reason code is issued by the following CSECT: DSNYSIRM

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The module might not contain an initialization load module list or the linkage editor entry control statement might not specify the initialization load module list as the module entry point.

Register 9 contains the address of an 8-byte field that contains the name of the module that holds the invalid initialization load module list.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80084

Explanation: A resource manager provided notification of failure during subsystem startup notification processing.

This abend reason code is issued by the following CSECT: DSNYSIRM

System Action: The DB2 subsystem is terminated.

Operator Response: Verify that you entered the -START DB2 command using the correct DSNZPARM initialization parameter module. If it was not, reenter the command with the correct DSNZPARM module. Otherwise, notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the RMID of the resource manager that requested DB2 subsystem termination.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5, 8, 9, 16, 19.

00E8008F

Explanation: An unsupported function request was detected by the resource manager initialization function.

This abend reason code is issued by the following CSECT: DSNYSIRM

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80091

Explanation: An error occurred when a POST was issued from the control address space to a resource manager address space in order to indicate that DB2 shutdown is to be initiated for that address space.

This abend reason code is issued by the following CSECT: DSNYSTOP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: The resource manager address space might be abnormally terminating.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8009F

Explanation: An unsupported function request was detected by the DB2 subsystem shutdown control function.

This abend reason code is issued by the following CSECT: DSNYSTOP

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E800AF

Explanation: An unsupported function request was detected by the resource manager termination function.

This abend reason code is issued by the following CSECT: DSNYSTRM

00E800B1 • 00E800D2

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E800B1

Explanation: A service task could not be created during processing of the -STOP DB2 command.

This abend reason code is issued by the following CSECT: DSNYSCMD

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the return code from the create-service task function of the agent services manager (ASM) subcomponent.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E800CE

Explanation: MVS was unable to establish an ESTAE for the stop-work notification function.

This abend reason code is issued by the following CSECT: DSNYSTPW

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason

code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the ESTAE macro return code.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E800D1

Explanation: A resource manager provided notification of failure during local memory-create notification processing.

This abend reason code is issued by the following CSECT: DSNYAGCS

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 8 contains the address of a 4-byte field that contains the RMID of the resource manager that requested DB2 subsystem termination.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E800D2

Explanation: An error was encountered while attempting to obtain the MVS LOCAL lock.

This abend reason code is issued by the following CSECT: DSNYAGCS

System Action: The DB2 subsystem is terminated.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E800D3

Explanation: An error was encountered while attempting to release the MVS LOCAL lock.

This abend reason code is issued by the following CSECT: DSNYAGCS

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E800DF

Explanation: An unsupported function request was detected by the address space global common services function.

This abend reason code is issued by the following CSECT: DSNYAGCS

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a print of SYS1.LOGREC and the SVC dump. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80100

Explanation: The DB2 subsystem was abended because the DB2 address space control task ESTAE was entered. This reason code is issued for all abend completion codes, except for the X'04E' abend completion code.

This abend reason code is issued by the following CSECT: DSNYEECTE

System Action: Termination of the DB2 subsystem is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

The DB2 subsystem is unable to determine the cause of the error.

Problem Determination: The subcomponent that caused the error is unknown. Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5, 9, 16, 19.

00E8011D

Explanation: An unrecovered resource (for example, a latch) was detected for a must-complete function.

This abend reason code is issued by the following CSECT: DSNYEATE

System Action: Termination of DB2 subsystem is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8011E

Explanation: The allied address space task primary ESTAE detected that MVS was unable to establish the secondary ESTAE.

This abend reason code is issued by the following CSECT: DSNYEATE

System Action: Abnormal termination of allied address space is continued.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an

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error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8011F

Explanation: The allied address space task primary ESTAE was entered without a subsystem diagnostic work area (SDWA) provided by MVS RTM.

This abend reason code is issued by the following CSECT: DSNYEATE

System Action: Abnormal termination of the allied address space is continued.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8012D

Explanation: The allied address space task secondary ESTAE detected an unrecovered resource (for example, a latch) for a 'must complete' function.

This abend reason code is issued by the following CSECT: DSNYEAT2

System Action: Abnormal termination of DB2 subsystem is initiated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8012F

Explanation: The allied address space task secondary ESTAE was entered without a subsystem diagnostic work area (SDWA) provided by MVS.

This abend reason code is issued by the following CSECT: DSNYEAT2

System Action: Continue with the abnormal termination of the allied address space.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80130

Explanation: The FRR that protects the -START/-STOP DB2 command processor function was entered while a valid -STOP DB2 command was being processed.

This abend reason code is issued by the following CSECT: DSNYESCF

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80140

Explanation: The ESTAE that protects the stop work notification function was entered.

This abend reason code is issued by the following CSECT: DSNYESWE

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Refer to Appendix A, "CICS Transaction Abend/Dump Code," on page 1351 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80150

Explanation: An initialization entry point list having an invalid format was detected.

This abend reason code is issued by the following CSECT: DSNYEMCL

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of an 8-byte field that holds the name of the load module in which the invalid initialization entry point list exists.

Probable cause is that the module does not contain an initialization entry point list or the linkage editor entry control statement does not specify the initialization entry point list as the module entry point.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80151

Explanation: An invalid module entry point address was detected in an initialization entry point list entry.

This abend reason code is issued by the following CSECT: DSNYEMCL

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 12-byte field that contains the following diagnostic information: bytes 1 through 8, the name of the load module that contains the initialization entry point list with the invalid entry; bytes 9 through 12, and the entry number of the initialization entry point list entry. Probable cause is that the initialization entry point list entry defines an invalid module entry point or defines a valid entry point for a module that has not been included in the loaded module.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E8015F

Explanation: An unsupported function request was detected by the module entry point list (MEPL) management function.

This abend reason code is issued by the following CSECT: DSNYEMCL

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA).

Problem Determination: Register 9 contains the address of a 4-byte field that contains the function request value.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 3, 5.

00E80160

Explanation: During DB2 startup processing, the Initialization Procedures subcomponent detected a load module with an invalid AMODE or RMODE attribute. The abend is preceded by message DSNY006I or by DSNY007I.

This abend reason code is issued by the following CSECTs:

DSNYASCP DSNYASTR DSYSIRM DSNYSTRT

System Action: Subsystem startup is terminated.

Operator Response: See message DSNY006I or message DSNY007I.

System Programmer Response: The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

See message DSNY006I or message DSNY007I.

Problem Determination: See message DSNY006I or message DSNY007I.

00E80161

Explanation: During DB2 subsystem startup processing, the Initialization Procedures subcomponent detected a load module that was not at the same version of DB2 as the subsystem being started.

This abend reason code is issued by the following CSECT: DSNYASCP

System Action: Subsystem startup is terminated.

Operator Response: See message DSNY010I.

System Programmer Response: The recovery routine for the CSECT issuing this reason code records information in the variable recording area (VRA). If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

See message DSNY010I.

Problem Determination: See message DSNY010I.

00E80170

Explanation: You requested a facility that was not loaded or started at the time DB2 started. Whether or not to load or start a facility is contained in the DSN6FAC member in ZPARMS.

This reason code is returned to the calling CSECTs by DSNYNFAC along with a return code of 8.

This is not an error in DSNYNFAC. If an error exists, it

might be in the calling CSECT or in the DSN6FAC member in ZPARMS.

System Action: This is determined by the caller of DSNYNFAC.

Operator Response: Notify the system programmer.

System Programmer Response: If it can be determined that DSN6FAC is in error, assemble DSN6FAC with corrections and re-link-edit the DSNZPARM load module.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 9.

Chapter 54. X'E9.....' codes

00E90101

Explanation: This reason code is issued when a DB2 directory cannot be opened. This is probably a DB2 subsystem error.

This abend reason code is issued by the module identified in the SYS1.LOGREC entry for this abend code.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a print of SYS1.LOGREC and the SVC dump.

Problem Determination: This abend results when any one of a number of DB2 internal directories cannot be opened. One customer-usable directory can also cause this abend if it cannot be opened. This is the DSNZPARM directory that is established at installation.

This directory may have a name different from that specified at installation, because the customer has the option of changing the name during installation. Ensure that the DSNZPARM directory (or its equivalent) is available to be opened.

If the DSNZPARM directory (or its equivalent) is available, the problem is a DB2 subsystem problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend is intercepted by an FRR or ESTAE for the subcomponent or module that issued the DSNZOPEN request. The module containing the abended request is identified in the SYS1.LOGREC entry. This information may be useful in communicating with IBM about the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 8, 9, 32.

00E90201

Explanation: An incorrect parameter was encountered. This reason code is issued by module DSNZTGET in response to a DSNZGDE request. This is a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSNZTGET

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a print of SYS1.LOGREC and the SVC dump.

Problem Determination: Locate the caller's save area by examining register 13 in the SYS1.LOGREC register save area. Registers 0 and 1 in the caller's save area identify the incorrect parameter(s).

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 8, 9, 32.

00E90202

Explanation: An error was found in the directory control information for a DB2 directory. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSNZTGET

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

System Programmer Response: Obtain a print of SYS1.LOGREC and the SVC dump.

Problem Determination: This abend results when incorrect control information is found for any one of a number of DB2 internal directories. One customer-usable directory can also cause this abend. This is the DSNZPARM directory that is established during installation.

This directory may have a name different from that specified at installation, because the customer has the option of changing the name during installation. Ensure that the DSNZPARM directory (or its equivalent) is available.

If the DSNZPARM directory (or its equivalent) is available, the problem is a DB2 subsystem problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 8, 9, 32.

00E90203

Explanation: An error was found in the descriptor control information for a DB2 directory. This is probably a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSNZTGET

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer.

00E90403 • 00E90405

System Programmer Response: Obtain a print of SYS1.LOGREC and the SVC dump.

Problem Determination: This abend results when the descriptor control information is incorrect for any one of a number of DB2 directories. One customer-usable directory can also cause this abend. This is the DSNZPARM directory that is established at installation.

This directory may have a name different from that specified at installation, because you have the option of changing the name during installation. Ensure that the DSNZPARM directory (or its equivalent) is available.

If the DSNZPARM directory (or its equivalent) is available, the problem is a DB2 subsystem problem. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5, 8, 9, 32.

00E90403

Explanation: A failure occurred when DB2 processed the -SET SYSPARM command. This error can be caused by inconsistent data or an internal error in DB2.

System Action: A record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer. Collect the following materials listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump from the operator.

If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E90404

Explanation: DB2 has detected an error while processing the -SET SYSPARM command.

System Action: A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested. The requesting execution unit abends.

Operator Response: Notify the system programmer. Collect the following materials listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump from the operator. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00E90405

Explanation: An error occurred while DB2 was attempting to create a service task during -SET SYSPARM command processing.

System Action: A diagnostic record is written to SYS1.LOGREC, and an SVC dump is requested.

Operator Response: Notify the system programmer. Collect the following materials listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

System Programmer Response: Obtain the SYS1.LOGREC and SVC dump from the operator. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Chapter 55. X'F1.....' codes

The DSN1LOGP service aid can abend with user abend code X'099'. You can find the corresponding abend reason code in register 15 at the time of error.

00F10100

Explanation: An internal error has been detected in the DSN1LOGP service aid.

Operator Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

00F10101

Explanation: The stand-alone log read function returned an invalid RBA. See the explanation for message DSN1211E.

Operator Response: If you determine that the data set is a log data set and it is not damaged, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Chapter 56. X'F3.....' codes

Many of the following abend reason codes are returned in register 15 at the time of an X'0Cx' system abend and not as the reason code for an X'04E' abend. This is indicated in the descriptions that follow.

00F30001

Explanation: This reason code may be returned to subsystem-type recovery coordinators when they connect to DB2 or during processing of indoubt threads to inform the coordinator that further recovery coordination actions are required.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This reason code is issued by the following CSECTs:

DSN3ID30 DSN3RIA0 DSN3RIS0

System Action: Processing continues.

00F30002

Explanation: The requested DB2 subsystem, as specified by the subsystem name, is not active. The option to notify the requester, either via an ECB post or a SEND/MODIFY MVS command, is accepted.

This reason code is issued by the following CSECT: DSN3CL0X

System Action: The request to notify the caller when the subsystem is active is queued for processing during subsystem startup.

User Response: Retry the connection request after DB2 has been started.

00F30003

Explanation: An abend has occurred during an attempt to access or modify the caller-provided function request block (FRB) while executing in the caller's PSW key.

This abend reason code is issued by the following CSECTs:

DSNAPRHH DSNAPRHX DSN3CL0X DSN3ID00

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: This reason code is placed in register 15 during any access to an

attachment-provided function request block (FRB). A subsequent X'0Cx' abend indicates an FRB addressability problem. This abend is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 49.

00F30004

Explanation: An abend has occurred during an attempt to access the attachment-provided parameter list while executing in the caller's PSW key.

This abend reason code is issued by the following CSECTs:

DSNAPRHH DSNAPRHX DSN3CL0X DSN3CT30
DSN3CT80 DSN3EXT0 DSN3ID00 DSN3ID30
DSN3ID80 DSN3PR00 DSN3RIA0 DSN3SI30
DSN3SI80 DSN3TR00

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: This reason code is placed in register 15 during any access to an attachment-provided parameter list. A subsequent X'0Cx' abend indicates a parameter addressability problem.

This abend is probably the result of a logic error in the attachment facility. For call attachment users, the abend may have been caused by a bad parameter address passed to call attachment.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 49.

00F30005

Explanation: An error was detected during processing of a request to establish or delete a 'termination ECB'. Either a parameter value was incorrect or an abend occurred while accessing the attachment-provided parameter list.

This reason code is issued by the following CSECT: DSN3EXT0

00F30006 • 00F30009

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the nonabend case, either the ECB address was zero or the Request Code was not 'Establish' or 'Delete'. If the reason code is in register 15 on an abend, either the parameter list or a parameter value was not addressable in the caller's PSW key.

The error may be the result of an internal error in the attachment facility. Call attachment users should check that the supplied ECB address is not zero and that it is addressable in their PSW key.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 49.

00F30006

Explanation: A failure occurred while processing the 'Subsystem Name' during connection processing. In the abend case, connection processing failed when accessing the 'Subsystem Name' in the caller's PSW key. In the nonabend case, MVS was unable to locate a DB2 subsystem with the specified name.

This reason code is issued by the following CSECT: DSN3ID00

System Action: The request is not processed.

User Response: A dump should be taken in your recovery routine for abend analysis. If the named subsystem could not be found, verify that the correct subsystem name was specified. Call attachment users should note that the Translate function cannot be invoked for this reason code.

System Programmer Response: See Problem Determination.

Problem Determination: If the named subsystem could not be found, scan the MVS system log to verify that it was initialized during MVS IPL processing.

If this reason code was specified in register 15 on an abend, check that the subsystem name value is addressable in the caller's PSW key.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00F30007

Explanation: A failure occurred while processing the 'Connection Type' parameter during connection processing. Either the 'Connection Type' value was

invalid or an abend occurred accessing the parameter using the caller's PSW key.

This reason code is issued by the following CSECTs: DSN3CLOX, DSN3ID30.

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. This failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 49.

00F30008

Explanation: A failure occurred while processing the 'Notify Message/Startup ECB' parameter during connection processing. An abend occurs while accessing the parameter or while verifying that the ECB word was addressable in the caller's PSW key. In the nonabend case, either the parameter had a zero length or the supplied ECB address was zero.

This reason code is issued by the following CSECT: DSN3CLOX

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. The failure may be due to a logic error in the attachment facility. Call attachment users should verify that the Startup ECB address is nonzero and that the ECB word is addressable in their PSW key.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 49.

00F30009

Explanation: A request was received to establish a termination ECB, but a termination ECB had already been established for the connected task.

This reason code is issued by the following CSECT: DSN3EXT0

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility or invoking application.

Problem Determination: This failure is probably the result of a logic error in the attachment facility.

00F30010

Explanation: A request was received to delete a termination ECB, but a termination ECB has not been established for the connected task.

This reason code is issued by the following CSECT:
DSN3EXT0

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility or invoking application.

Problem Determination: This failure is probably the result of a logic error in the attachment facility.

00F30011

Explanation: A connection or other work request was received, but the designated DB2 subsystem is not active. If the request was to connect to the subsystem, and the Notify Message/Startup ECB was supplied, it was not accepted.

In some instances, this code may be reported if the application program issued an RRSF IDENTIFY function request and RRS/MVS was not available.

System Action: The request is not processed.

User Response: If the failure occurred on a connection request and a Notify Message/Startup ECB was provided, a dump should be taken for problem analysis. Reconnect to DB2 when the subsystem is active again.

If RRS/MVS was not available for an RRSF IDENTIFY request, ensure RRS/MVS is active and retry the request.

System Programmer Response: Obtain all dumps taken by the attachment facility or invoking application.

Problem Determination: The Notify Message or Startup ECB could not be accepted for one of two reasons.

- Storage for a buffer could not be obtained, or
- the length of the Message/ECB parameter was zero.

In the latter case, the attachment facility is probably in error. If insufficient storage was available for a buffer, the size of the CSA in 24-bit storage should be increased.

In some instances, the failure was reported because the application required an RRSF IDENTIFY request and RRS/MVS was not active. Additional checking is needed when RRS/MVS is involved.

00F30012

Explanation: The requested DB2 subsystem, as specified by the subsystem name, is not active. The option to notify the requester, either via an ECB post or a SEND/MODIFY MVS command, is accepted, but overlays a previous Notify Message/Startup ECB request.

This reason code is issued by the following CSECT:
DSN3CLOX

System Action: The request to notify the caller when the subsystem is active is queued for processing during subsystem startup.

User Response: Retry the connection request after DB2 has been started.

00F30013

Explanation: The requester is not authorized to connect to this DB2 subsystem. This condition might indicate an attempted security violation.

This reason code is issued by the following CSECT:
DSN3AUCN

System Action: The connection request is denied.

User Response: Verify that you have specified the correct RACF authorization ID. If necessary, request authorization to access the DB2 subsystem from your security administrator.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. Refer the user to your security administrator if the user should be granted authorization to a DB2 subsystem. Refer to Part 3 (Volume 1) of *DB2 Administration Guide* for examples of how to authorize users to specific DB2 subsystems.

Problem Determination: During TCB connection processing, Subsystem Support invokes the RACROUTE service (causing a RACF RACHECK) to verify the authorization ID associated with the requester. If the RACF return code indicates the requester is not authorized to connect to this DB2 subsystem, the connection request is terminated with this reason code.

00F30014

Explanation: The requester of a Subsystem Support function (for example, ABORT) for a connection is not in the same PSW key as when the connection was created.

This abend reason code is issued by the following CSECTS:

00F30015 • 00F30018

DSN3AB00 DSN3CM00 DSN3CT80 DSN3PR00
DSN3SI30 DSN3SY00

System Action: The requester's task is abended with code X'04E'.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: This failure may be the result of a logic error in the attachment facility or an intentional attempt to violate DB2 connection protocols. The error should be evaluated in the same way as a system X'0C2' abend, an attempt by a nonprivileged program to perform privileged operations.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5, 49.

00F30015

Explanation: The attachment facility specified an invalid combination of values of FRBRALE and FRBQUAL. No Program Request Handler exists to service the call.

This reason code is issued by the following CSECT: DSNAPRHX

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility and requesting application.

Problem Determination: Register 1 contains a pointer to the FRB at the entry to DSNAPRHX. The FRBRALE and FRBQUAL values in the caller's FRB should be examined to determine which one is in error. Not all combinations of valid FRBRALE and FRBQUAL values are supported. Each RALE is supported differently.

00F30016

Explanation: The attachment facility specified an invalid FRBRALE value. The value is outside the limits of those supported for the requesting connection. This can occur in many cases, one of which is when an SQL call is requested with a blank plan name by the requester.

This reason code is issued by the following CSECT: DSNAPRHX

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility and requesting application.

Problem Determination: Register 1 contains a pointer to the FRB at the entry to DSNAPRHX. FRBRALE contains the invalid value that was passed. The value passed is not consistent with the resources allocated to the connected application.

If the plan name contains blanks, an SQL call is invalid. The requester should respecify the plan name and issue the request again.

00F30017

Explanation: The attachment facility specified an invalid FRBQUAL value. The value is outside the limits of those supported for the requesting connection.

This reason code is issued by the following CSECT: DSNAPRHX

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility and requesting application.

Problem Determination: Register 1 contains a pointer to the FRB at the entry to DSNAPRHX. FRBQUAL contains the invalid value that was passed. The value passed is not consistent with the resources allocated to the connected application.

00F30018

Explanation: The requester's TCB is not connected to this instance of the DB2 subsystem. The TCB may have been connected to a previous instance.

This reason code is issued by the following CSECT: DSNAPRHX

System Action: The request is not processed.

User Response: Request a new connection to DB2.

System Programmer Response: See Problem Determination.

Problem Determination: This error can occur for one of the following reasons:

- The DB2 subsystem has terminated and the connected application issues a DB2 work request without reestablishing the connection after the subsystem is restarted.
- The connection has been terminated by a CANCEL THREAD command.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00F30019

Explanation: The requester's primary ASID (PASID) is not equal to the home ASID (PSAAOLD).

This reason code is issued by the following CSECT:
DSNAPRHX

System Action: The request is not processed.

User Response: You may want to take a dump for problem analysis. The request may be retried, but first ensure the CPU is not in cross-memory mode.

System Programmer Response: See Problem Determination.

Problem Determination: No requester of a DB2 attachment facility may be in cross-memory mode. That is, PASID must equal HASID, which must equal SASID.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00F30020

Explanation: An error was detected while processing the 'Commit Option' on a SSAM termination request. Either the value of the 'Commit Option' parameter was not valid or an abend occurred when accessing the parameter.

This abend reason code is issued by the following CSECTs:

DSN3ID80	DSN3SI80	DSN3TR00
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System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. The failure may be the result of a logic error in the attachment facility. Call Attachment users should note that only 'SYNC' and 'ABRT' are valid terminate options.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 49.

00F30021

Explanation: An attachment facility issued a Subsystem Support request, but provided too few or too many parameters.

This abend reason code is issued by the following CSECTs:

DSN3AB00	DSN3CM00	DSN3CT30	DSN3CT80
DSN3EXT0	DSN3ID30	DSN3ID80	DSN3PR00
DSN3RIA0	DSN3SI30	DSN3SI80	DSN3SY00

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility or by the requesting application.

Problem Determination: This failure is probably the result of a logic error in the attachment facility.

Upon entry to each of the CSECTs listed above, register 1 contains the address of the Function Request Block (FRB). FRBPCNT contains the number of passed parameters and FRBPARM points to a list of parameter addresses. The required number of parameters is unique to the calling protocol for each CSECT.

00F30022

Explanation: An error was detected while processing the 'Connection Name' for a connection request. Either the value of the 'Connection Name' parameter was not valid or an abend occurred when accessing the parameter.

This abend reason code is issued by the following CSECT: DSN3ID30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. A 'Connection Name' is invalid if it is not a printable string (e.g. binary zeros). The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 49.

00F30023

Explanation: This reason code may be returned during connection processing if the connection name is already in use by another allied address space, but the connection type is different.

This reason code is not normally visible to users or operators, but may appear in DB2 traces. The ally attempting to connect to DB2 should have produced diagnostic information relating to the connection failure.

This reason code is issued by the following CSECT: DSN3ID30

System Action: The connection request is rejected.

System Programmer Response: Collect the diagnostics produced by the allied address space which could not connect to DB2.

Problem Determination: Follow the instructions indicated by the diagnostics to assure that a different connection name will be used on future attempts to connect to DB2.

00F30024

Explanation: The 'connection name' or 'connection type' does not match the name or type established by another connected task in the address space.

This reason code is issued by the following CSECT: DSN3ID30

System Action: The connection request is denied.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: All tasks within an address space connecting to the same DB2 subsystem must connect with the same connection name and type. Tasks within TSO and batch address spaces using the 'BATCH' connection type may specify unequal connection names. The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 49.

00F30025

Explanation: A request to establish a DB2 termination ECB has completed successfully; however, DB2 is stopping. The new termination ECB might not be posted.

This reason code is issued by the following CSECT: DSN3EXT0

System Action: Control is returned to the attachment facility.

User Response: Since DB2 is stopping, you should attempt to terminate your connection. Next, issue a connect request and provide a Startup ECB. When the Startup ECB is posted, issue the connect request again to re-establish your connection to the restarted DB2.

00F30026

Explanation: The attachment facility specified an invalid FRBFVLE value. The value is outside the limits of those supported for the requesting connection.

This reason code is issued by the following CSECT: DSNAPRHX

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility and requesting application.

Problem Determination: Register 1 contains a pointer to the FRB at the entry to DSNAPRHX. FRBFVLE contains the invalid value that was passed. The value passed must not be zero and it must be consistent with the resource requested by FRBRALE.

00F30027

Explanation: An error occurred while processing the 'Weighting Factor' parameter. This parameter was provided by the attachment facility on a request to allocate a DB2 plan to the application.

Either an abend occurred accessing the 'Weighting Factor' or the value of the parameter is out of range.

This abend reason code is issued by the following CSECT: DSN3CT30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. The value of the 'Weighting Factor' must be a positive number between zero and 255. The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 49.

00F30028

Explanation: This reason code is returned when previous invocations of DB2 have set the thread into a state such that the only acceptable request that can be made for the thread is ABORT. This could occur, for example, if the ally has issued "Prepare to Commit" and DB2 returned a "No" vote on the call. In this situation, the only acceptable request for the ally to make is ABORT.

This reason code is not normally visible to users or operators, but may appear in DB2 traces. The ally may have produced diagnostics to report this condition, or it may handle this condition internally without requiring outside intervention.

This reason code is issued by the following CSECTs: DSN3TR00, DSN3CHM00

System Action: The current allied request is rejected. The state of the thread is unchanged.

System Programmer Response: Collect any diagnostics produced by the allied address space.

Problem Determination: Follow the instructions indicated by the diagnostics, if any.

00F30029

Explanation: This reason code is returned when a COMMIT request is received in an improper context. Either a PREPARE is required before the COMMIT request, or the connection type does not allow a COMMIT request.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This reason code is issued by the following CSECTs: DSN3CM00, DSN3TR00

System Action: The current allied request is rejected. The state of the thread is unchanged.

00F30030

Explanation: An abend has occurred during an attempt to access the caller-provided 'INDOUBT RESOLUTION' parameter while executing in the PSW key. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECTs: DSN3RIA0, DSN3RIM0

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs this register indicates which parameter caused the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00F30031

Explanation: This reason code is returned when a DEALLOCATE request is received from a CICS or IMS thread, but PREPARE has already completed for the thread and either COMMIT or ABORT are the only acceptable requests.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This reason code is issued by the following CSECT: DSN3TR00

System Action: The current allied request is rejected. The state of the thread is unchanged. The ally issuing the DEALLOCATE request may have produced diagnostics related to this error.

System Programmer Response: Collect the diagnostics produced by the allied address space, if any.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30032

Explanation: An error occurred while processing the 'Indoubt Resolution' parameter. This parameter was provided by the attachment facility on a request to allocate a DB2 plan to the application.

Either an abend occurred accessing the 'Indoubt Resolution' or the value of the parameter is incorrect for this connection type.

This abend reason code is issued by the following CSECT: DSN3CT30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. For TSO, batch, and Call Attachment connections, the value of the 'Indoubt Resolution' parameter must be 'NO'. The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 49.

00F30033

Explanation: An abend has occurred during an attempt to access the 'Plan Name' parameter while executing in the caller's PSW key.

This abend reason code is issued by the following CSECT: DSN3CT30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: This reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. The failure may be the result of a logic error in either the attachment facility or the requesting application.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 49.

00F30034

Explanation: The authorization ID associated with this connection is not authorized to use the specified plan name or the specified plan name does not exist.

This reason code is issued by the following CSECTs: DSN3CT30, DSN3SI30

System Action: The request to allocate a plan to the authorization ID is denied.

User Response: Verify that the correct plan name was specified. If this plan exists, then request execution authority to the plan from either the owner of the plan or from another person given authority to grant execution authority to the plan.

00F30035

Explanation: An abend has occurred during an attempt to access the caller-provided authorization ID while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs this register indicates which parameter caused the error.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30036

Explanation: This reason code may be returned during connection processing for a coordinator thread if a coordinator for that connection name already exists. This may be a case of two IMS or CICS systems using the same connection name.

This reason code is not normally visible to users or operators, but may appear in DB2 traces. The ally attempting to connect to DB2 should have produced diagnostic information relating to the connection failure.

This reason code is issued by the following CSECT: DSN3ID30

System Action: The connection request is rejected.

System Programmer Response: Collect the diagnostics produced by the allied address space which could not connect to DB2.

Problem Determination: Follow the instructions indicated by the diagnostics to ensure that a different connection name will be used on future attempts to connect to DB2.

00F30037

Explanation: This reason code may be returned during connection processing for a CICS or IMS dependent (noncoordinator) thread if a coordinator for that connection name does not already exist. This may be an internal error in CICS, IMS, or the attachment package.

This reason code is not normally visible to users or operators, but may appear in DB2 traces. The ally attempting to connect to DB2 should have produced diagnostic information relating to the connection failure.

This reason code is issued by the following CSECT: DSN3ID30

System Action: The connection request is rejected.

System Programmer Response: Collect the diagnostics produced by the allied address space which could not connect to DB2.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30038

Explanation: An abend has occurred during an attempt to access the 'Correlation ID' parameter while executing in the caller's PSW key.

This abend reason code is issued by the following CSECTs: DSN3CT30, DSN3SI30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: This reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 49.

00F30039

Explanation: This reason code may be returned on a PREPARE request if Network ID (NID) is specified, but NID was previously specified on the CREATE THREAD request. NID cannot be specified on both requests. This may be an internal error in CICS, IMS, or the attachment package.

This reason code is not normally visible to users or operators, but may appear in DB2 traces. The ally issuing the PREPARE to DB2 should have produced diagnostic information relating to the connection failure.

This reason code is issued by the following CSECT: DSN3PR00

System Action: The PREPARE request is rejected.

System Programmer Response: Collect the diagnostics produced by the allied address space which had the failing request.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30040

Explanation: The allocation of the plan to the connection failed. Either a resource is unavailable or the requested resource (plan) is not known to DB2.

This reason code is issued by the following CSECT: DSN3CT30

System Action: Information on the failing resource name, object type, and a Database Services reason code, that help to explain the allocation failure, are returned to the attachment facility.

User Response: Unknown plans must be bound before they can be accessed.

Call Attachment users may invoke the TRANSLATE function to move the information returned to the attachment facility into the error message field SQLERRMT in the SQLCA.

System Programmer Response: Refer to message DSNT500I for identification of unavailable resources and diagnostics to be collected. Refer to Table 3 in

Appendix B, "Problem determination," on page 1353 for an explanation of resource type codes.

Problem Determination: See response suggestions above.

00F30042

Explanation: An abend has occurred during an attempt to access the caller-provided recovery coordinator option while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECT: DSN3ID30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs this register indicates which parameter caused the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30043

Explanation: A terminate request was received with the 'Deallocate' option, but a unit of recovery is still outstanding for the connection. Either 'SYNC' or 'ABRT' must be requested before resources can be deallocated.

This reason code is issued by the following CSECT: DSN3TR00

System Action: The termination request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility or requesting application.

Problem Determination: This failure is probably the result of a logic error in the attachment facility or a DB2 connection management error. This reason code is placed in register 0 and the return code is placed in register 15.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 82 on page 1355.

00F30044

Explanation: This reason code is returned when a DEALLOCATE request is received with uncommitted work outstanding. Either the PREPARE, COMMIT sequence or an ABORT request is required.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This reason code is issued by the following CSECT: DSN3TR00

System Action: The current allied request is rejected. The state of the thread is unchanged. The ally issuing the DEALLOCATE request may have produced diagnostics related to this error.

System Programmer Response: Collect the diagnostics produced by the allied address space, if any.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30045

Explanation: An error has occurred while attempting to locate the Unit of Recovery associated with a DISPLAY, COMMIT, or ABRT request. This is probably the result of a logic error in the requesting program.

This reason code is issued by the following CSECTS: DSN3RIA0, DSN3RIM0

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 0 and the return code is placed in register 15.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 22, 23, 24, 25, 26.

00F30046

Explanation: A terminate request was received with the 'Commit' option, but this option is not supported for this connection type. Only the 'SYNC' or 'ABRT' options are valid for TSO, batch, and Call Attach connections.

This reason code is issued by the following CSECT: DSN3TR00

System Action: The termination request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility or requesting application.

Problem Determination: This failure is probably the

result of a logic error in the attachment facility.

00F30047

Explanation: This reason code is returned when a RECOVER INDOUBT-ABORT request is received from a CICS or IMS recovery coordinator, but the thread is already in the process of COMMITing.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This reason code is issued by the following CSECT: DSN3RIA0

System Action: The current allied request is rejected. The state of the thread is unchanged. The ally issuing the RECOVER INDOUBT-ABORT request may have produced diagnostics related to this error.

System Programmer Response: Collect the diagnostics produced by the allied address space, if any.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30048

Explanation: An abend has occurred during an attempt to access the attachment-provided 'Network ID' while executing in the caller's PSW key.

This abend reason code is issued by the following CSECTS: DSN3CT30, DSN3PR00

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: This reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 49.

00F30049

Explanation: A request was received to connect the requester's TCB to a DB2 subsystem, but the TCB is already connected.

This reason code is issued by the following CSECT: DSN3ID30

System Action: The connection request is rejected.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Obtain all dumps taken by the attachment facility or requesting application.

Problem Determination: The failure is probably the result of a logic error in the attachment facility.

00F30050

Explanation: A DB2 request has been received after a failure during a previous request and cleanup of the previous request did not complete. This can happen if DB2 recovery was bypassed on a previous request. This bypass occurs if the application has an enabled unlocked task (EUT) FRR active and requested a retry back to the application mainline code.

This reason code is issued by the following CSECT: DSNAPRHX

System Action: The request is not processed. DB2 will terminate the connection when the TCB terminates.

User Response: You must terminate your task. Do not attempt further DB2 requests. Do not request terminating the connection. You should request a dump for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: The diagnostic data should be examined for prior failures while processing a request for this connection. Users of the call attachment facility cannot retry from an EUT FRR routine if an error occurs during DB2 processing.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 49.

00F30051

Explanation: This reason code is returned when a RECOVER INDOUBT request is received from a CICS or IMS recovery coordinator, but the thread is still processing in DB2 code other than EOT. The request cannot be processed at this time but may be successful if issued again later.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This reason code is issued by the following CSECT: DSN3RIA0

System Action: The current allied request is rejected. The state of the thread is unchanged. The ally issuing the RECOVER INDOUBT request may have produced diagnostics related to this error.

System Programmer Response: Collect the diagnostics produced by the allied address space, if any.

Problem Determination: Follow the instructions

indicated by the diagnostics.

00F30052

Explanation: The caller's connection with DB2 has been terminated, because the caller's recovery coordinator has already terminated.

This abend reason code is issued by the following CSECT: DSNAPRHX

System Action: The request has been processed by terminating the agent.

User Response: Your application program may identify to DB2 when its recovery coordinator has identified again.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00F30053

Explanation: An error occurred while processing the 'Current Level' parameter. This parameter was provided by the attachment facility on a termination request.

Either an abend occurred accessing the 'Current Level' or the value of the parameter is invalid.

This abend reason code is issued by the following CSECTs:

DSN3CT80 DSN3ID80 DSN3SI80

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: See Problem Determination.

Problem Determination: For the abend case, this reason code is placed in register 15 to identify which parameter was not addressable in the caller's PSW key. The value of the 'Current Level' parameter must be zero or a number representing the connection's authority level. The failure is probably the result of a logic error in the attachment facility.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 5, 49.

00F30054

Explanation: The value of the 'Current Level' parameter does not match the current authority level of the connection. This parameter was provided by the attachment facility on a termination request.

This reason code is issued by the following CSECTs:

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DSN3CT80 DSN3ID80 DSN3SI80

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: Collect all dumps taken by the attachment facility or requesting application.

Problem Determination: The failure is probably the result of a logic error in the attachment facility.

00F30055

Explanation: The maximum number of concurrent identify level agents has been exceeded.

This abend code is issued by the following CSECT: DSN3ID30

System Action: The connection request is not processed.

User Response: Attempt connection to DB2 at a later time.

System Programmer Response: Ensure that the DB2 system parameters controlling the maximum number of concurrent identifies are correct. These system parameters are Max Users, Max TSO connect, and Max Batch connect on installation panel DSNTIPE.

00F30056

Explanation: An IDENTIFY request for connection to DB2 was rejected. DB2 had been started in restricted access mode. Only authorization IDs authorized to perform maintenance functions are permitted access to DB2.

This reason code is issued by the following CSECT: DSN3AUCN

System Action: The connection request is not processed.

User Response: Retry the connection request after DB2 has been restarted in full access mode.

00F30057

Explanation: An invalid application-supplied address was encountered while accessing the application-provided data.

This abend reason code is issued by the following CSECTs: DSNAET03, DSNAPRHX.

System Action: The application program is abended with code X'04E' and this reason code.

System Programmer Response: Obtain the dump printout from the application programmer. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide*

and *Reference* for information on identifying and reporting the problem.

Problem Determination: The register contents at the time of abend are as follows:

- R2** A decimal code identifying the bad data:
 1 FRB address is invalid.
 2 FRBPARM contains an invalid RDIIN address.
 18 RDICODEP contains an invalid SQLCA address.
- R3** The invalid application data area address.
- R4** The address of the RDIIN.
- R5** The virtual storage key of the data.
- R8** The address of the FRB in the application address space.

Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 4.

00F30058

Explanation: Access to DB2 has been denied by the site's authorization exit.

This reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The request is not processed.

User Response: Contact your security administrator and request authority to access this DB2 subsystem.

System Programmer Response: No action is necessary unless the request denial was in error. If it was, the authorization exit should be tested to determine the cause of the error.

00F30059

Explanation: The return code from the authorization exit was not valid. Field EXPLARC must be set by the authorization exit to either 0 or 12.

This abend reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The request is not processed.

System Programmer Response: Diagnostics obtained for the failure must be analyzed and the exit corrected.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00F30060

Explanation: Upon return from an authorization exit, the returned value of the SQL ID was not equal to either the returned primary or one of the returned secondary authorization IDs.

This abend reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The request is not processed.

System Programmer Response: Diagnostics obtained for the failure must be analyzed and the exit corrected.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00F30061

Explanation: An abend occurred while referencing the SIGNON request's secondary authorization ID parameter provided by the attachment facility.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: SIGNON processing is terminated.

System Programmer Response: Analyze the diagnostic data to determine which attachment module may have been in error. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This reason code is placed in register 15 to identify which parameter was not addressable with the caller's PSW key. The failure is probably the result of an error in the attachment facility.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30062

Explanation: Upon return from the SIGNON authorization exit, the returned value of the primary authorization ID is null. The first character is less than or equal to X'40'.

This abend reason code is issued by the following CSECT: DSN3AUSI

System Action: The request is not processed.

System Programmer Response: Diagnostics obtained for the failure must be analyzed and the exit corrected.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 5.

00F30063

Explanation: The DB2 attachment facility for IMS, CICS, or RRSAF provided a secondary authorization ID value, but no primary authorization ID value. This is a violation of the SIGNON protocol.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: The SIGNON request is terminated with a return code of 12 and this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 22, 23, 24, 25, 26, 49.

This is probably an error in the attachment facility.

00F30064

Explanation: The DB2 attachment facility for IMS, CICS, or RRSAF did not provide a value for the primary authorization ID, and the current primary authorization ID is also null. This is a violation of the SIGNON protocol. A user's connection must have an associated primary authorization ID.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: The SIGNON request is terminated with a return code of 12 and this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 22, 23, 24, 25, 26, 49.

This is probably an error in the attachment facility.

00F30065

Explanation: An error occurred in determining the commit state of the thread.

This abend reason code is issued by the following CSECTs:

DSN3PR00 DSN3CM00 DSN3AB00

System Action: The caller is abended in DSN3PR00

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and DSN3CM00. In DSN3AB00 a dump is taken and an abort is attempted.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced. These can be used to locate the areas for examination, especially the RAL in the dump.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30066

Explanation: An abend occurred during an attempt to access the caller-provided ACEE address field while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: The sign-on request is not processed.

User Response: You may retry from your recovery routine (ESTAE) and continue execution with the same level of capability you had before the request that abended.

Problem Determination: The reason code is placed in register 15 prior to any access to caller-provided information.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30067

Explanation: The caller holds a DB2 latch. This is a violation of the Authorization Services request protocol. The caller cannot hold a DB2 latch when requesting connection or sign-on services.

This abend reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The connection or sign-on request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A requester of connection or sign-on cannot hold a DB2 latch.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 2, 49. Determine who the requester was.

00F30068

Explanation: The CCB is being freed. This Authorization Service request specifies the address of a CCB that has previously been requested to be freed.

This abend reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The connection or sign-on request is not processed.

User Response: A dump should be taken for program analysis.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Authorization Service requests must be serialized. Once a request to free a given CCB is made, no subsequent Authorization Service request can be made referencing the same CCB.

Collect the following diagnostic items as described in Appendix B, "Problem determination," on page 1353: 2, 5, 49.

00F30069

Explanation: The exit environment is incorrect. Either the exit environment was freed after connection processing or an error occurred acquiring storage for a CCB or during connection processing.

This abend reason code is issued by the following CSECT: DSN3AUSI

System Action: The sign-on request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items, described in Appendix B, "Problem determination," on page 1353: 3, 5, 49.

00F30070

Explanation: Functional recovery for the connection or sign-on processing could not be established. The executing module could not establish its ESTAE. This can occur if the current address space has insufficient storage. This may lead to an abnormal termination of the DB2 subsystem.

This abend reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The connection or sign-on request is not processed. The caller is abended with code X'04E' and this reason code.

User Response: A dump should be taken for problem analysis.

Operator Response: Notify the system programmer and restart DB2 if necessary.

System Programmer Response: Examine the usage and free areas in the LSQA portion of the current address space private area. If necessary, have the size of the private areas expanded.

Problem Determination: The caller should produce a SYS1.LOGREC entry and an SVC dump, so that the system programmer can examine the LSQA area.

Collect the following diagnostic items, described in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30071

Explanation: A logic error has occurred. An Authorization Service request has been made that references the same CCB as a currently processing request. These requests must be serialized.

This reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The connection or sign-on request is not processed.

User Response: Notify the system programmer. A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Authorization service requests must be serialized. Once an authorization service request is made referencing a given CCB, no subsequent authorization service requests can be made referencing the same CCB until the first request completes.

Collect the following diagnostic items, described in Appendix B, "Problem determination," on page 1353: 2, 5, 49.

00F30072

Explanation: The requester's authorization ID or password could not be verified. This condition may indicate a security violation.

This reason code is issued by the following CSECT: DSN3AUCN

System Action: The connection request is not processed.

User Response: Verify that you have specified the correct RACF authorization ID and password. If necessary, request authorization to the DB2 subsystem from your security administrator.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. Refer the user to your security administrator if the user should be granted access to a DB2 subsystem. If this error occurred during a remote connection request, examine the communications database to determine the security controls in effect for a remote connection request. Refer to Part 3 (Volume 1) of *DB2 Administration Guide* for examples of how to authorize users for specific DB2 subsystems.

Problem Determination: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password, if supplied, associated with the requester. If the RACF return code indicates the authorization ID or password could not be verified, the connection request is terminated with this reason code.

00F30073

Explanation: The parameter flag settings on the Authorization Service request contradict each other. One flag is set to request the build of the exit environment. The other flag is set to request the release of the exit environment. These flags are mutually exclusive.

This abend reason code is issued by the following CSECT: DSN3AUCN

System Action: The connection request is not processed. The caller is abended with code X'04E' and this reason code.

User Response: A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Only one of these flags can be set on when requesting connection processing.

Collect the following diagnostic items, described in Appendix B, "Problem determination," on page 1353: 2, 49.

00F30074

Explanation: There is a problem in the execution environment. Connection or sign-on was requested from an SRB-mode execution unit, but the authorization services service task that would normally be switched to does not exist.

This abend reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The connection or sign-on request is not processed.

User Response: Notify the system programmer. A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. for failure analysis procedures.

Problem Determination: Determine why the authorization services service task was not created.

Collect the following diagnostic items, described in Appendix B, "Problem determination," on page 1353: 3, 4, 49.

00F30075

Explanation: RACROUTE returned an error when a request was made to RACROUTE to free an ACEE.

This reason code is issued by the following CSECTs: DSN3AUCN, DSN3AUSI

System Action: The connection or sign-on request is not processed.

User Response: A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items, described in Appendix B, "Problem determination," on page 1353: 1, 2, 3, 49.

00F30076

Explanation: An error occurred while attempting to obtain a CCB.

This abend reason code is issued by the following CSECT: DSN3TM00

System Action: The allied user is abended with code X'04E' and this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: An SVC dump, associated SYS1.LOGREC entries, and SYSLOG should be available. If you suspect an error in DB2,

refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: General purpose register 2 contains a reason code from authorization services that indicates the cause of the failure.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30077

Explanation: A plan or package could not be executed for one of these reasons:

- It is disabled in the environment in which you attempted to run.
- The attach library that you are using is from a previous release of DB2 that does not support the ENABLE and DISABLE options of the bind operation.

This reason code is issued by the following CSECT: DSN3CT30

System Action: The plan or package is not executed.

System Programmer Response: One of the following:

- Rebind the plan or package to enable it to execute in the present environment.
- Check the SYSPLSYSTEM or SYSPKSYSTEM catalog table to find an environment in which the plan or package can be executed.
- Correct the attach library.

00F30078

Explanation: An abend occurred during an attempt to access the caller-provided connecting system type code while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECT: DSN3ID30

System Action: The request is not processed.

User Response: A dump should be taken for problem analysis.

Problem Determination: This reason code is placed in register 15 during any access to caller-provided information. When any abend occurs this register indicates which parameter caused the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30080

Explanation: CSECT DSNAPRHX was unable to cancel its ESTAE.

This abend reason code is issued by the following CSECT: DSNAPRHX

System Action: The application program is abended with code X'04E' and this reason code.

User Response: Notify the system programmer. The application may be retried.

System Programmer Response: See Problem Determination.

Problem Determination: A nonzero return code was received from the Cancel ESTAE operation. The return code has been placed into Register 2. Refer to *MVS/ESA Programming: Assembler Services Reference* for the meaning of the return code.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 4, 5.

00F30081

Explanation: An abend occurred during an attempt to access the caller-provided accounting token field while executing in the key of the caller. This is probably the result of a logic error in the requesting program.

This abend reason code is issued by the following CSECT: DSN3SI30

System Action: The SIGNON request is not processed.

User Response: You may retry from your recovery routine (ESTAE) and continue execution with the same level of capability you had before the request was abnormally terminated.

Problem Determination: The reason code is placed in register 15 prior to any access to caller-provided information.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30082

Explanation: This reason code is returned when the automatic bind for plan is disabled. The automatic bind is disabled through the installation process.

This reason code is issued by the following CSECT: DSN3CT30

System Action: The plan is not automatically bound.

System Programmer Response: Rebind the plan prior to execution.

00F30083

Explanation: This reason code is returned because an allied application, or its recovery routine, attempted to issue an SQL request following an abend that could not be retried (that is, CANCEL, DETACH).

This reason code is issued by the following CSECT: DSNAPRHX

System Action: Control is returned to the calling program, either the application program or its recovery routine, so that end-of-task processing can take place.

User Response: If you feel that this is a DB2 problem, notify the system programmer.

System Programmer Response: This reason code is issued because an allied application had an MVS CANCEL or DETACH issued against it and its recovery routine either retried back to the application, or did itself, try to execute another SQL statement to DB2. This call is rejected to help allow the application to be processed through end-of-task processing.

Problem Determination: If you believe that this error is not the result of the above reason, then collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00F30085

Explanation: The requester's password could not be verified. This condition might indicate a security violation.

System Action: The connection request is not processed.

User Response: Verify that you specified the correct RACF password for this requester.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. If this error occurred during a remote connection request, examine the communications database to determine the security controls in effect for a remote connection request. Refer to Part 3 (Volume 1) of *DB2 Administration Guide* for examples of how to set up the security controls for remote connection requests in the communications database.

Problem Determination: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password, if supplied, associated with the requester. If the RACF return code indicates the password could not be verified, the connection request is terminated with this reason code.

This reason code is issued by the following CSECT: DSN3AUCN

00F30086

Explanation: The requester's password is expired. This condition might indicate a security violation.

System Action: The connection request is not processed.

User Response: Change your password so that it is no longer expired.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. If this error occurred during a remote connection request, examine the communications database to determine the security controls in effect for a remote connection request. Refer to Part 3 (Volume 1) of *DB2 Administration Guide* for examples of how to set up the security controls for remote connection requests in the communications database.

Problem Determination: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password, if supplied, associated with the requester. If the RACF return code indicates the password expired, the connection request is terminated with this reason code.

This reason code is issued by the following CSECT:
DSN3AUCN

00F30087

Explanation: The requester's authorization ID or password could not be verified by the site's security exit routine. This condition might indicate a security violation.

System Action: The connection request is not processed.

User Response: Verify that you specified the correct RACF authorization ID and password. If necessary, request authorization to the DB2 subsystem from your security administrator.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. If this error occurred during a remote connection request, examine the communications database to determine the security controls in effect for a remote connection request. Refer to Part 3 (Volume 1) of *DB2 Administration Guide* for examples of how to set up the security controls for remote connection requests in the communications database.

Problem Determination: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password, if supplied, associated with the requester. If the RACF return code indicates that the site's security exit routine failed to

verify the requester, the connection request is terminated with this reason code.

This reason code is issued by the following CSECT:
DSN3AUCN

00F30088

Explanation: The requester's authorization ID was revoked. This condition might indicate a security violation.

System Action: The connection request is not processed.

User Response: Verify that you specified the correct RACF authorization ID and password. If necessary, request authorization to the DB2 subsystem from your security administrator.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. If this error occurred during a remote connection request, examine the communications database to determine the security controls in effect for a remote connection request. Refer to Part 3 (Volume 1) of *DB2 Administration Guide* for examples of how to set up the security controls for remote connection requests in the communications database.

Problem Determination: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password, if supplied, associated with the requester. If the RACF return code indicates that the requester's authorization ID was revoked, the connection request is terminated with this reason code.

This reason code is issued by the following CSECT:
DSN3AUCN

00F30089

Explanation: The requester's authorization ID is not defined to RACF. This condition might indicate a security violation.

System Action: The connection request is not processed.

User Response: Verify that you specified the correct RACF authorization ID and password. If necessary, request authorization to the DB2 subsystem from your security administrator.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when a request is denied. If this error occurred during a remote connection request, examine the communications database to determine the security controls in effect for a remote connection request. Refer to Part 3 (Volume 1) of *DB2 Administration Guide* for examples of how to set up the security controls for

remote connection requests in the communications database.

Problem Determination: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password, if supplied, associated with the requester. If the RACF return code indicates that the requester's authorization ID is not defined, the connection request is terminated with this reason code.

This reason code is issued by the following CSECT:
DSN3AUCN

00F30090

Explanation: The application program issued an RRSF SIGNON or AUTH SIGNON function request, but the application either has OPEN CURSORS or SPECIAL REGISTERS that are not in their initial state and the reuse=INITIAL rule is in effect.

System Action: The SIGNON or AUTH SIGNON request is not processed.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSN3SI30

00F30091

Explanation: The application program issued an RRSF IDENTIFY function request, but RRS/MVS is not available.

System Action: The IDENTIFY request is not processed.

User Response: Retry the IDENTIFY request after RRS/MVS has been started.

Problem Determination: This reason code is issued by the following CSECT: DSN3ID30

00F30092

Explanation: The application program issued an RRSF SIGNON or AUTH SIGNON function request, but the application has issued an SQL request since the last invocation of SRRCMIT or SRRBACK and therefore is not at a point of consistency.

System Action: The SIGNON or AUTH SIGNON request is not processed.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSN3SI30

00F30093

Explanation: The application program issued an RRSF TERMINATE THREAD or TERMINATE IDENTIFY function request, but the application has issued an SQL request since the last invocation of SRRCMIT or SRRBACK and therefore is not at a point of consistency.

System Action: The function request is not processed.

User Response: You can continue processing with a corrected request.

Problem Determination: This reason code is issued by the following CSECT: DSN3CT80 DSN3ID80

00F30094

Explanation: During remote connection processing, Authorization Services invokes the RACROUTE service using the RACF RACINIT form to verify the authorization ID and password associated with the requester, and changes the password to a new password (if supplied). If the RACF return code indicates that the requester's new password is invalid, the connection request is terminated with this reason code.

System Action: The connection request is not processed.

User Response: Verify that your new password value meets the installation's requirements for new passwords.

System Programmer Response: Examine the console/SYSLOG output for RACF messages issued when the request was denied.

This reason code is issued by the following CSECT:
DSN3AUCN

00F30095

Explanation: An internal error was detected in either DB2 or OS/390 RRS.

System Action: The application is abended. This error may, in many cases, eventually abend the DB2 subsystem.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably either an error in DB2 or in OS/390 RRS. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 records on the SYS1.LOGREC data set and requests an SVC dump. The error indicates that there may be a problem with DB2 or with OS/390 RRS.

Collect the following diagnostic items listed in

00F30096 • 00F3009B

Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSN3SQLF, DSN3CMIT, DSN3CT30, DSN3SPIN, DSN3SPTN, DSN3BABR, DSN3CMT2, DSN3CTXS, DSN3RRSX

00F30096

Explanation: An internal error was detected in either DB2 or RRS Context Services.

System Action: The application is abended. This error can, in many cases, eventually abend the DB2 subsystem.

Operator Response: Notify the system programmer.

System Programmer Response: This is probably either an error in DB2 or in RRS. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 records on the SYS1.LOGREC data set and requests an SVC dump. The error indicates that there can be a problem with DB2 or with OS/390 RRS Context Services.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSN3ID30, DSN3ID80, DSN3SPIN, DSN3SPTN

00F30097

Explanation: The context_key supplied via the CONTEXT SIGNON function of RRSF is not associated with the current context.

System Action: CONTEXT SIGNON is not performed.

User Response: Use CTXSDTA to store the primary authid in the context data associated with the current context before invoking CONTEXT SIGNON. The context_key used to store the data must be the context_key that is passed as input to CONTEXT SIGNON.

Problem Determination: This reason code is issued by the following CSECT: DSN3SI30

00F30098

Explanation: The CONTEXT SIGNON function of RRSF requires OS/390 R5 or later.

System Action: CONTEXT SIGNON is not performed.

User Response: Check the release level of OS/390 that you are running on.

Problem Determination: This reason code is issued by the following CSECT: DSN3SI30

00F30099

Explanation: The data retrieved using the context_key passed via the CONTEXT SIGNON function of RRSF is a version not supported by DB2.

System Action: CONTEXT SIGNON is not performed.

User Response: Determine the version number supported by the DB2 release you are running. This is described in the description of CONTEXT SIGNON in the DB2 Application Programming and SQL Guide. Use CTXSDTA to store the correct version of the context data associated with the current context before invoking CONTEXT SIGNON.

Problem Determination: This reason code is issued by the following CSECT: DSN3SI30

00F3009A

Explanation: An attempt to was made to invoke the DB2 API for an agent that was currently performing syncpoint processing. This could occur if an RRSF attached application invoked DB2 after another control task had already initiated RRS syncpoint processing for the same DB2 agent.

After syncpoint processing has been initiated on behalf of an agent that is connected by RRSF to DB2, the DB2 API may not be used to access DB2 until the syncpoint processing completes.

System Action: The API request is rejected.

User Response: Serialize the initiation of RRS syncpoint processing with the use of the DB2 API.

00F3009B

Explanation: The RRSF prepare exit was invoked for a DB2 agent that is currently executing in DB2.

This could occur if a control task initiated RRS syncpoint processing for a DB2 agent while an application task was accessing DB2 data using the same DB2 agent.

Once a DB2 agent is active in DB2, another task may not initiate RRS syncpoint processing for the same agent.

System Action: DB2 returns ATRABACK to the prepare request. The DB2 agent is abended with reason 00E50013.

User Response: Serialize the initiation of RRS syncpoint processing with accessing DB2 data.

Problem Determination: An entry recording this condition is written in SYS1.LOGREC.

00F3009C

Explanation: An RRS syncpoint exit was invoked for a DB2 agent by a task different than the task currently associated with the DB2 agent and the DB2 early code module installed on the system does not support this function.

System Action: The RRS syncpoint request is abended. This will result in DB2 losing its connection with RRS. The DB2 subsystem must be stopped and then started again in order to establish a new connection with RRS.

Operator Response: Notify the system programmer.

System Programmer Response: The version of the DB2 early code that was loaded from the LINKLIST library does not support RRS syncpoints initiated from a task that is not connected to the DB2 agent associated with the RRS unit of recovery for which syncpoint processing is being initiated. The DB2 early code must either be the DB2 V5 with APAR PQ16273 applied or the DB2 V6 early code. Make sure a compatible version of the DB2 early code will be loaded and then re-ipl the system.

Problem Determination: An entry recording this condition is written in SYS1.LOGREC.

00F3009D

Explanation: An abend occurred during an attempt to access the caller-provided user ID while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The SIGNON request is not processed.

User Response: You may retry from your recovery routine (ESTAE) and continue execution with the same level of capability you had before the request was abnormally terminated.

Problem Determination: The reason code is placed in register 15 prior to any access to caller-provided information.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F3009E

Explanation: An abend occurred during an attempt to access the caller-provided application name while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The SIGNON request is not processed.

User Response: You may retry from your recovery routine (ESTAE) and continue execution with the same

level of capability you had before the request was abnormally terminated.

Problem Determination: The reason code is placed in register 15 prior to any access to caller-provided information.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F3009f

Explanation: An abend occurred during an attempt to access the caller-provided workstation name while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The SIGNON request is not processed.

User Response: You may retry from your recovery routine (ESTAE) and continue execution with the same level of capability you had before the request was abnormally terminated.

Problem Determination: The reason code is placed in register 15 prior to any access to caller-provided information.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F300A1

Explanation: The global transaction ID (XID) parameter that was provided on a SIGNON request is invalid for one of the following reasons:

- An incorrect XID value was specified
- The value was specified in an incorrect format
- If an address of a global transaction ID was specified, the length values were not within the valid range

System Action: The SIGNON request is not processed.

User Response: Correct the XID parameter on the SIGNON request.

00F300A3

Explanation: While executing in the PSW key of the caller, an abend occurred during an attempt to access the accounting-string parameter that was provided by the caller. This is probably the result of a logic error in the requesting program.

System Action: The SIGNON request is not processed.

User Response: You may retry from your recovery routine (ESTAE), and continue execution with the same level of capability you had before the request was abnormally terminated.

Problem Determination: The reason code is placed in register 15 prior to any access to caller-provided information.

00F300A4

Explanation: The application program issued a CALL DSNRLI with function SIGNON, AUTH SIGNON, or CONTEXT SIGNON with a accounting-string parameter that is not supported on this version of DB2.

User Response: Correct the request, and continue processing.

00F30101

Explanation: The parameter contained in the IEFSSNxx member used to initialize DB2 (and other subsystems) is in error. Refer to message DSN3101I for details.

The abend reason code is issued by the following CSECT: DSN3UR00

System Programmer Response: See message DSN3101I.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30102

Explanation: The parameter contained in the IEFSSNxx member used to initialize DB2 (and other subsystems) is in error. The DB2 subsystem recognition character must not be blank. For details, see message DSN3102I.

This abend code is issued by the following CSECT: DSN3UR00

System Programmer Response: See message DSN3102I.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30103

Explanation: The parameter contained in the IEFSSNxx member used to initialize DB2 (and other subsystems) is in error and/or the named module is not resident in a library available during IPL. Refer to message DSN3103I for details.

This abend code is issued by the following CSECT: DSN3UR00

System Programmer Response: See message DSN3103I.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem

determination," on page 1353: 1, 2, 5.

00F30104

Explanation: Module DSN3UR00 was unable to obtain the DB2 subsystem affinity table index for the named subsystem. MVS did not recognize the named subsystem. Refer to message DSN3109I for details.

This abend code is issued by the following CSECT: DSN3UR00

System Programmer Response: See message DSN3109I.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30105

Explanation: Module DSN3UR00 was unable to load Early module 'DSN3EPX'. Either there was an I/O error, or the named module is not resident in a library available during IPL. Refer to message DSN3105I for details.

This abend reason code is issued by the following CSECT: DSN3UR00

System Programmer Response: See message DSN3105I. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00F30106

Explanation: A global transaction identifier from RRS could not be extracted for a SIGNON request. The SIGNON request was for a thread that indicated it was part of a global transaction, and that RRS was to provide the global transaction id.

System Action: The application is abended.

Operator Response: Collect the SYS1.LOGREC and SVCDUMP, and notify the system programmer.

System Programmer Response: This is probably either an error in DB2 or in RRS. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. If RRS has terminated, restart RRS.

Problem Determination: Examine the SVCDUMP to determine the cause of the RRS failure. Register zero contains the return code from the RRS ATRRWID request.

00F30107

Explanation: An abnormal termination occurred during an attempt to access the caller-provided xid parameter while executing in the PSW key of the caller. This is probably the result of a logic error in the requesting program.

System Action: The SIGNON request is not processed.

User Response: Correct the problem and submit your job again.

Problem Determination: The reason code is placed in register 15 prior to any access to caller-provided information.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30111

Explanation: The DB2 program which establishes DB2 as an MVS subsystem during Master Scheduler initialization has determined that either its own load module or a load module loaded by it does not have the attributes AMODE(31) and RMODE(ANY). Message DSN3111I was issued just prior to the abend. This message contains the name of the load module in error.

This abend reason code is issued by the following CSECT: DSN3UR00

System Action: DB2 subsystem initialization is terminated.

System Programmer Response: See message DSN3111I.

00F30112

Explanation: DB2 is unable to register the installation-specified command prefix with MVS. The command prefix is specified in the subsystem definition parameter. The subsystem specified by *ssnm* in message DSN3112I is not available.

This abend reason code is issued by following CSECT: DSN3UR00

System Programmer Response: See message DSN3112I.

00F30113

Explanation: DB2 detected an error in the subsystem definition parameter, which is obtained from the IEFSSNxx member of SYS1.PARMLIB. The subsystem specified by *ssnm* in message DSN3113I is not available. This abend reason code is issued by following CSECT: DSN3UR00

System Programmer Response: See message DSN3113I.

00F30114

Explanation: DB2 group attach is not supported on this release of MVS. DB2 found an installation-specified group attach name specified in the subsystem definition parameter, IEFSSNxx, but DB2 group attach is not supported on this release of MVS. DB2's group attach feature requires MVS/ESA SP4.2.2 or higher.

This abend reason code is issued by the following CSECT: DSN3UR00

System Action: The DB2 subsystem is not available.

Operator Response: Notify the system programmer.

System Programmer Response: Correct the subsystem definition parameter to not specify a group attach name and re-IPL.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested.

Collect the following diagnostic items: CONSOLE LOG, SVCDUMP, and LOGREC.

00F30115

Explanation: DB2 received a nonzero return code from the MVS Name/Token service IEANTCR when DB2 attempted to register the group attach name. The group attach name is specified in the subsystem definition parameter, IEFSSNxx. The DB2 subsystem is unavailable.

This abend reason code is issued by following CSECT: DSN3UR00

System Action: The DB2 subsystem is not available.

Operator Response: Notify the system programmer.

System Programmer Response: Contact the IBM Support Center.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC, and a DB2 dump is requested. Register 3 contains the return code, in hexadecimal, that was returned to DB2 from MVS IEANTCR Name/Token services.

Collect the following diagnostic items: CONSOLE, SVCDUMP, LOGREC.

00F30116

Explanation: The version of the DB2 early code module that you are attempting to use is not compatible with this version of MVS. This version of DB2 requires MVS/ESA.

System Action: The DB2 subsystem is not available.

Operator Response: Notify the system programmer.

System Programmer Response: The version of the DB2 early code that was loaded from the LINKLIST library is not compatible with the release of MVS that you are using. Change the concatenation order of the LINKLIST library so that a compatible release of DB2 early code is used.

Problem Determination: Diagnostic information is recorded in SYS1.LOGREC and a DB2 dump is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

This abend reason code is issued by following CSECT: DSN3UR00

00F30120

Explanation: An error occurred when DB2 invoked the Security Authorization Facility R_ticketerv callable service. DB2 attempted to use this callable service to validate a Kerberos ticket received from a remote client. DB2 generated this reason code in conjunction with message DSN3581I.

System Action: Authentication fails.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: See message DSN3581I for more information.

00F30121

Explanation: A DB2 internal error occurred when DB2 invoked the Security Authentication Facility R_ticketerv callable service. DB2 attempted to use this callable service to validate a Kerberos ticket received from a remote client. This reason code is generated in conjunction with message DSN3581I.

System Action: Authentication fails. A dump should be taken for problem analysis.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: See message DSN3581I for more information. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the diagnostic items described in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30122

Explanation: An error occurred when DB2 invoked the Security Authorization Facility R_usermap callable service. DB2 attempted to use this callable service to determine the user ID associated with the principal name received via a Kerberos ticket that was received from a remote client. This reason code is generated in conjunction with message DSN3581I.

System Action: Authentication fails.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: See message DSN3581I for more information.

00F30123

Explanation: A DB2 internal error occurred when DB2 invoked the Security Authorization Facility R_usermap callable service. DB2 attempted to use this callable service to validate a Kerberos ticket received from a remote client. This reason code is generated in conjunction with message DSN3581I.

System Action: Authentication fails. A dump should be taken for problem analysis.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: See message DSN3581I for more information. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the diagnostic items described in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30203

Explanation: This reason code is returned when a DB2 program attempts to either activate an already active SSI function code or deactivate an already inactive SSI function code.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

00F30210

Explanation: One of these conditions exists:

- Module DSN3RS0X received a nonzero return code from ENQ (exclusive).
- Module DSN3ENQ0 received a nonzero return code from ENQ (shared) and the indication was other than 'the task already has the resource enqueued'.

This is a serious error.

This abend reason code is issued by the following CSECTs: DSN3ENQ0, DSN3RS0X.

System Action: The caller is abended.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the error return from the ENQ SVC, examine the SVC dump.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced. Register 2 at the time of the abend contains the value passed back by ENQ in register 15. This can be used to locate the response area.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30211

Explanation: One of the following conditions exists:

- Module DSN3DEQ0 wanted to release the resource unconditionally but did not have it to release.
- Module DSN3RS0X received a nonzero return code from DEQ and the indication was other than 'the task had not been assigned control'.

This is a serious error.

This abend reason code is issued by the following CSECTs: DSN3DEQ0, DSN3RS0X.

System Action: The caller is abended. The current request has probably been processed completely. However, processing serialization may not have been maintained.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the error returned from the DEQ SVC, examine the SVC dump.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced. Register 2 at the time of the abend contains the value passed back by DEQ in register 15. This can be used to locate the response area.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30212

Explanation: A function that is allowed only for DB2 key callers was invoked by a supervisor state caller in another key. (Problem state callers receive system X'0C2' abend completion codes instead.)

This abend reason code is issued by the following CSECT: DSN3AC0X

System Action: The caller is abended.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the DB2 service module running in the wrong PSW key, examine the SVC dump.

Problem Determination: If the invoker is a DB2 service module, an SVC dump and associated SYS1.LOGREC entries are produced. The invoker should have been in DB2 KEY during the invocation.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30213

Explanation: The invoker of module DSN3AC0X passed an invalid action code. The only valid codes are 0 (deactivate) and 1 (activate).

This abend reason code is issued by the following CSECT: DSN3AC0X

System Action: The caller is abended.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the caller of the activate and deactivate service module, examine the SVC dump.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced by a DB2 service module. The save area chain should indicate the invoker of this service module.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30214

Explanation: The invoker of module DSN3AC0X passed an invalid SSOB function code. The valid codes range from 1 to 255.

This abend reason code is issued by the following CSECT: DSN3AC0X

System Action: The caller is abended.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the caller of the activate and deactivate service module, examine the SVC dump.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced by a DB2 service module. The save area chain should indicate the invoker of this service module.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30215

Explanation: The invoker of module DSN3AC0X passed an invalid 'QUEUE' parameter. The storage provided could not be modified in the DB2 PSW key.

This abend reason code is issued by the following CSECT: DSN3AC0X

System Action: The caller is abended with system completion code of X'0C4'.

Operator Response: Notify the system programmer.

System Programmer Response: To determine the caller of the activate and deactivate service module, examine the SVC dump.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced by a DB2 service module. The save area chain should indicate the invoker of this service module. The invoker should have set a correct parameter value before invoking module DSN3AC0X.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30216

Explanation: The ASCB for the newly created DB2 subsystem services address space could not be located. The presumption is that the DB2 subsystem has not been started successfully. Further entry of commands to the DB2 subsystem results in attempts to start DB2.

This abend reason code is issued by the following CSECT: DSN3EC0X

System Action: The current -START command processing is terminated. Subsequent commands are processed as though this command had not been processed.

Operator Response: Retry the command. If the command fails again, notify the system programmer.

System Programmer Response: If the command fails again, request an IPL of MVS, as the failure may be the result of an MVS internal problem.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced. The ASID passed back by the MVS command scheduler for the -START command is not valid.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30217

Explanation: The console ID for the MVS console that entered the current command is not found in the MVS unit control module (UCM) structure. This is a serious error. An internal MVS START command may have been incorrectly issued by an application program that provided invalid input parameters.

This abend reason code is issued by the following CSECT: DSN3EC0X

System Action: The caller is abended.

Operator Response: Retry the -START DB2 command. If the command fails again, notify the system programmer.

System Programmer Response: If the command fails again, request a stand-alone dump and an IPL of MVS, as this may be due to an MVS internal problem.

Problem Determination: The SSOB command extension mapped by IEFSSCM contains the invalid console ID.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30218

Explanation: The ERLY block for this DB2 subsystem is in error. The control word that manages command processing is in an undefined state. This is a serious error.

This abend reason code is issued by the following CSECT: DSN3EC0X

System Action: The current TCB is abended. Two possible reasons are:

- There is no DB2 subsystem services address space. Therefore, the initial command state can safely be set in the control word, and the current command can be treated as a 'first' (-START) command. Processing of the command continues.
- The system services address space ASID is known, but the state of the DB2 subsystem is uncertain. In this case, the command facility is considered disabled, and message DSN3108I is returned to the issuer of the command.

Operator Response: Notify the system programmer.

System Programmer Response: Examine the ERLY block field ERLYCMST. If the value of ERLYCMST is greater than 2, the field is in error.

Problem Determination: The calling TCB may have requested an SVC dump or created associated SYS1.LOGREC entries.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30219

Explanation: The ERLY block for this DB2 subsystem is in error. The control word that manages EOM broadcast processing is in an undefined state. This is a serious error.

This abend reason code is issued by the following CSECT: DSN3EC0X

System Action: The calling TCB is abended.

Operator Response: Cancel DB2. (End of task processing may still work, and it does a more complete clean-up than end-of-memory processing does.) If this does not work, issue the MVS FORCE command for the DB2 address spaces. If the problem is still unresolved, request a stand-alone dump and re-IPL MVS.

System Programmer Response: Examine the ERLY block field ERLYEMST. If the value of ERLYEMST is greater than 2, it is in error.

Problem Determination: The calling TCB may have requested an SVC dump or created associated SYS1.LOGREC entries.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F3021A

Explanation: The ERLY block for this DB2 subsystem is in error. The control word that manages identify processing is in an undefined state. This is a serious error.

This abend reason code is issued by the following CSECT: DSN3CLOX

System Action: The calling TCB is abended.

Operator Response: Stop the DB2 subsystem and reissue the -START DB2 command.

System Programmer Response: Examine the ERLY block field ERLYIDST. If the value of ERLYIDST is greater than 2, it is in error.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00F3021B

Explanation: A return code other than 0, 4, or 8 was received from the MVS internal START command processor. The presumption is that the DB2 subsystem has not been started successfully. Further entry of commands to the DB2 subsystem results in further attempts to start DB2.

This abend reason code is issued by the following CSECT: DSN3EC0X

System Action: The current -START command processing is abended. Subsequent commands are processed as though this command had not been processed.

Operator Response: Retry the command. If the command fails again, request a stand-alone dump and re-IPL MVS.

System Programmer Response: Examine the SVC dump, LOGREC entries, and the console log for indications of an MVS failure.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F3021C

Explanation: Module DSN3EC0X could not establish an ESTAE during the processing of the first (presumed to be the -START command) command. The caller is abended. This can occur if the MVS system address space that is broadcasting the command has insufficient storage. Further entry of commands to the DB2 subsystem may result in a successful start of DB2.

This abend reason code is issued by the following CSECT: DSN3EC0X

System Action: The caller is abended (without ABDUMP). The current -START command processing is terminated. Subsequent commands are processed as though this command had not been processed.

Operator Response: Retry the command. If the command fails again, request a stand-alone dump and re-IPL MVS.

System Programmer Response: Examine the stand-alone dump, LOGREC entries, and the console log for indications of an MVS failure.

Problem Determination: A stand-alone dump is necessary.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 51.

00F3021D

Explanation: Module DSN3RS0X could not establish an ESTAE during either the initialization or termination of the online DB2 subsystem. The caller is abended.

This can occur during initialization if the MVS system address space that is broadcasting the first command (presumed to be the -START command) has insufficient storage. In this case, further entry of commands to the

DB2 subsystem may result in a successful start of DB2.

This can occur during termination if the current address space (usually system services, in case of EOM broadcast, an MVS system address space) has insufficient storage. In this case, after the DB2 subsystem has shut down, further entry of commands to the DB2 subsystem may result in a successful start of DB2.

This abend reason code is issued by the following CSECT: DSN3RS0X

System Action: The caller is abended (without ABDUMP). The initialization is aborted, but termination proceeds.

Operator Response: Retry the command. If the failure persists, a re-IPL of MVS is necessary and the system programmer should be notified. A stand-alone dump should be requested first.

System Programmer Response: Examine the stand-alone dump, LOGREC entries, and the console log for indications of an MVS failure.

Problem Determination: A stand-alone dump is necessary.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5, 51.

00F3021E

Explanation: Module DSN3RTR0 could not establish an ESTAE while in the process of routing control to the actual ESTAE routine. The caller (RTM) is abended. This causes the original error to percolate to a higher-level recovery routine and causes this abend to be shown in an RTM recovery environment.

This can occur if the current address space (usually an allied address space) has insufficient storage.

This abend reason code is issued by the following CSECT: DSN3RTR0

System Action: The caller is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: Examine the usage and free areas in the LSQA portion of the current address space private area. If necessary, have the size of the private area expanded.

Problem Determination: A SYSUDUMP is requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4, 5.

00F3021F

Explanation: Module DSN3RS0X discovered that the SSVT was not set to its initial state at DB2 subsystem initialization or termination time. An abend is issued in order to record SYS1.LOGREC data and request an SVC dump.

This abend reason code is issued by the following CSECT: DSN3RS0X

System Action: The caller is not abended. The SSVT is reset to its initial state. Subsystem initialization or termination continues.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The SVC dump contains an image of the SSCVT and the SSVT.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30220

Explanation: Module DSN3RS0X discovered that the PRHB was not set to its initial state at DB2 subsystem initialization or termination time. An abend is issued in order to record SYS1.LOGREC data and request an SVC dump.

This abend reason code is issued by the following CSECT: DSN3RS0X

System Action: The caller is not abended. The PRHB is reset to its initial state. Subsystem initialization or termination continues.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The associated SYS1.LOGREC entries and SVC dump contain the relevant information.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30230

Explanation: The module DSN3SSLM discovered that a user exit still exists for an allied address space that is being disconnected from DB2. This is an internal error.

This abend reason code is issued by the following CSECT: DSN3SSLM

System Action: The connection between the allied

address space and the DB2 subsystem is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A previous part of the disconnection process between DB2 and an allied address space has either not completed or terminated in error. The SVC dump and associated SYS1.LOGREC entries contain the relevant material for problem analysis.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 3, 5.

00F30310

Explanation: A nonzero return code was received from the recovery manager. It is issued by module DSN3RIA0 (application resolve-indoubt-UR) and by module DSN3RIM0 (resource manager resolve-indoubt-UR).

This abend reason code is issued by the following CSECTs: DSN3RIA0, DSN3RIM0

System Action: This is a DB2 error. The invoker is abended.

Operator Response: Notify the system programmer.

System Programmer Response: Collect the related materials. Determine the called recovery manager module and the module that issued the abend.

Problem Determination: The associated SYS1.LOGREC entry indicates which module issued the abend. Check the recovery manager resolve-indoubt exit trace for the return code.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30311

Explanation: Module DSN3RIM0 could not establish an ESTAE during the processing of a resolve-indoubt (RMRQ) request. This can occur if the current address space has insufficient storage. This probably leads to an abnormal termination of the DB2 subsystem.

This abend reason code is issued by the following CSECT: DSN3RIM0

System Action: The caller is abended (without ABDUMP).

Operator Response: Notify the system programmer, and restart DB2 if necessary.

System Programmer Response: Examine the usage and free areas in the local system queue area (LSQA)

portion of the current address space private area. If necessary, have the size of the private area expanded.

Problem Determination: The caller should produce a SYS1.LOGREC entry and an SVC dump, so that the system programmer can examine the LSQA area.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30312

Explanation: Module DSN3RIA0 could not establish an ESTAE during the processing of a resolve-indoubt-UR (RARQ) request. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECT: DSN3RIA0

System Action: The caller is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: Examine the usage and free areas in the local system queue area (LSQA) portion of the current address space private area. If necessary, have the size of the private area expanded.

Problem Determination: The caller should produce a SYS1.LOGREC entry and an SVC dump.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30313

Explanation: A CCB could not be allocated. This could occur when the storage pool has no more free space available.

This abend reason code is issued by the following CSECT: DSN3RIB2

System Action: The request to obtain a CCB is not processed. The application program is abended with code X'04E' and this reason code.

User Response: A dump should be taken for problem analysis.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 2.

00F30400

Explanation: This reason code is returned when a DB2 program makes a duplicate request to be called when a specific SSI function code is encountered on the SSI.

This reason code is not normally visible to users or operators, but might appear in DB2 traces.

System Programmer Response: Collect the diagnostics produced by the application program reporting the failure, if any.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30401

Explanation: This reason code is returned when a DB2 program makes a request to no longer be called when a specific SSI function code is encountered on the SSI, but the control block representing the original request to be called is busy and cannot be deleted now. The request is processed when the control block is no longer busy.

This reason code is not normally visible to users or operators, but might appear in DB2 traces.

System Programmer Response: Collect the diagnostics produced by the application program reporting the failure, if any.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30402

Explanation: This reason code is returned when a DB2 program makes a request to no longer be called when a specific SSI function code is encountered on the SSI, but the control block representing the original request to be called cannot be found.

This reason code is not normally visible to users or operators, but might appear in DB2 traces.

System Programmer Response: Collect the diagnostics produced by the application program reporting the failure, if any.

Problem Determination: Follow the instructions indicated by the diagnostics.

00F30405

Explanation: The DB2 subsystem was abended by module DSN3SSI1 because the system services address space's jobstep task terminated.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: You can start DB2 again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error which should have recorded an entry in SYS1.LOGREC data set and requested an SVC dump. Examine the SYS1.LOGREC entries and SVC dumps to determine the actual cause of the error. Refer to "DB2 abend completion codes (X'04E' and X'04F)" on page 5 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F30406

Explanation: The DB2 subsystem was abended by module DSN3SSI1 because the system services address space was forced to an end-of-memory condition.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: You can start DB2 again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data sets and requested an SVC dump. Examine the SYS1.LOGREC entries and SVC dumps to determine the actual cause of the error. Refer to "DB2 abend completion codes (X'04E' and X'04F)" on page 5 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F30407

Explanation: The DB2 subsystem was abended by module DSN3SSI1, because the jobstep task in a resource manager address space terminated.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: You can start DB2 again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data set and requested an SVC dump. Examine the SYS1.LOGREC entries and SVC dumps to determine the actual cause of the error. Refer to “DB2 abend completion codes (X'04E' and X'04F)” on page 5 for information on X'04F' and X'04E' abend completion codes.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 2.

00F30408

Explanation: The DB2 subsystem was terminated because a DB2 resource manager address space is in end-of-memory processing.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 can be started again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dumps should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 3, 5.

00F30409

Explanation: The DB2 subsystem was abended by module DSN3SSES, because an allied task going through either end-of-task or one of its terminating ancestor tasks was in a DB2 must-complete function or was still holding DB2 latches.

This abend reason code is issued by the following CSECT: DSN3SSES

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 2.

00F3040A

Explanation: The DB2 subsystem was abended by module DSN3SSI1, because an allied address space going through end-of-memory had one or more agents that either were in a DB2 must-complete function or were still holding DB2 latches.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in Appendix B, “Problem determination,” on page 1353: 1, 2.

00F3040B

Explanation: See message DSN3001I.

This abend reason code is issued by the following CSECT: DSN3SSTM

System Programmer Response: See message DSN3001I.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F3040C

Explanation: The DB2 subsystem was abended because the SSSS IEFSSREQ service agent (EB) was in a DB2 must-complete function upon return from the agent services create allied agent function.

This abend reason code is issued by the following CSECT: DSN3SSI2

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F3040D

Explanation: The DB2 subsystem was abended because the SSSS IEFSSREQ service agent (EB) was in a DB2 must-complete function upon return from the agent services terminate allied agent function.

This abend reason code is issued by the following CSECTs:

DSN3ID80 DSN3SSI2 DSN3SSES

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be

available. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F3040E

Explanation: The DB2 subsystem was abended after a failure during processing of an IDENTIFY, COMMAND, or MVS HELP subsystem interface broadcast. The recovery routine DSN3SSES attempted to clean up processing and pass the error to the caller, but was unable to do so.

This abend reason code is issued by the following CSECT: DSN3SSES

System Action: The DB2 subsystem is terminated.

Operator Response: The DB2 subsystem should be restarted.

System Programmer Response: Scan the SYS1.LOGREC entries for the initial error and subsequent abends encountered by module DSN3SSES. The ESTAE DSN3SSES is established at least three times. Repetitive errors within the ESTAE module ultimately result in a subsystem termination with this reason code.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F3040F

Explanation: The DB2 subsystem was abended because a DB2 latch, critical to the deferred end of task (EOT) termination process, was held by an MVS dispatchable unit, normally in an allied address space, which was no longer being dispatched and was, therefore, unable to release the latch.

This DB2 termination reason code is issued by the following CSECTs:

DSN3SSES DSN3SSI1 DSN3SSI2

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 may be started again after it terminates. The system programmer should be notified.

System Programmer Response: At least one SVC

dump and associated SYS1.LOGREC entries should be available. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error associated with an allied address space and especially in the case where the allied address space has been forced to an end-of-memory condition.

The console output should be examined for errors associated with allied address spaces.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30410

Explanation: The DB2 subsystem was abended, because the end-of-task listening module failed during a must-complete window. End-of-task processing is considered to be in a must-complete state until an ESTAE has been established. The 'user' of this ESTAE routine was the allied end-of-task listening module DSN3EOT0.

This abend reason code is issued by the following CSECT: DSN3AAES

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3AAES has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F30411

Explanation: The DB2 subsystem was abended because the abnormal termination of an agent failed during end-of-memory (EOM) processing for an allied address space. The 'user' of this ESTAE routine was the allied EOM routine DSN3EOM0.

This abend reason code is issued by the following CSECT: DSN3AAES

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer. DB2 may be started again after it terminates.

System Programmer Response: If you suspect an

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3AAES has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F30412

Explanation: The DB2 subsystem was abended because the abnormal termination of an agent failed during resolve-indoubt processing for an allied agent. The 'user' of this ESTAE routine was the resolve-indoubt-UR RMRQ routine DSN3RIM0.

This abend reason code is issued by the following CSECT: DSN3AAES

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer. DB2 may be started again after it terminates.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3AAES has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F30413

Explanation: The DB2 subsystem was abended, because the abnormal termination of an agent failed. However, this recovery routine was unable to determine who its caller was. It should be one of the following: DSN3EOT0, DSN3EOM0, or DSN3RIM0.

This abend reason code is issued by the following CSECT: DSN3AAES

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine

00F30414 • 00F30417

DSN3AAES has recorded data on the SYS1.LOGREC data set and has requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F30414

Explanation: The DB2 subsystem was abended, because module DSN3SSI1 (or its caller, DSN3CLOX) was unable to establish the ESTAEs during the processing of a command SSI call. This is probably an MVS problem, because these modules are executing in the MVS CONSOLE address space.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 may be started again after it terminates. If the failure persists, request a stand-alone dump, and re-IPL MVS.

System Programmer Response: This can occur if the MVS system address space that is broadcasting the command has insufficient storage. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 is unable to write a SYS1.LOGREC record or request a dump. The MVS CONSOLE function should have produced these diagnostic aids. Examine the dump to determine whether the problem is in MVS or DB2. Other unrelated failures in the MVS CONSOLE address space would indicate an MVS problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3.

00F30415

Explanation: The DB2 subsystem was abended because module DSN3SSI1 (or its caller, DSN3CLOX) was unable to establish the ESTAEs during the processing of an EOM SSI broadcast. This is probably an MVS problem, because these modules are executing in the MVS master scheduler address space.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 may be started again after it terminates. If the failure persists, request a stand-alone dump and re-IPL MVS.

System Programmer Response: This can occur if the MVS master scheduler address space has insufficient

free virtual storage. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 is unable to write a SYS1.LOGREC record or request a dump. The MVS master scheduler should have produced these diagnostic aids. Examine the dump to determine whether the problem is in MVS or DB2. Other unrelated failures in the MVS Master Scheduler address space would indicate an MVS problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3.

00F30416

Explanation: The DB2 subsystem was abended, because module DSN3EOM0 was unable to establish the ESTAE during the processing of an EOM for an allied address space.

This abend reason code is issued by the following CSECT: DSN3EOM0

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 may be started again after it terminates. If the failure persists, request a stand-alone dump and re-IPL MVS.

System Programmer Response: This can occur if the MVS master scheduler address space that is broadcasting the EOM has insufficient free virtual storage. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: DB2 is unable to write a SYS1.LOGREC record or request a dump. The MVS master scheduler should have produced these diagnostic aids. Examine the dump to determine whether the problem is in MVS or DB2. Other unrelated failures in the MVS Master Scheduler address space would indicate an MVS problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 3.

00F30417

Explanation: The DB2 subsystem was abended because of a failure in the first end of task (FEOT) processing for a task that had established subsystem affinity to DB2.

This abend reason code is issued by the following CSECT: DSN3SSES

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 can be started again after it terminates.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3SSES has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F30418

Explanation: The DB2 subsystem was abended because of a failure in the end-of-memory (EOM) processing for an address space that had established subsystem affinity to DB2.

This abend reason code is issued by the following CSECT: DSN3SSES

System Action: The DB2 subsystem is terminated.

Operator Response: DB2 may be started again after it terminates.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3SSES has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F30419

Explanation: The DB2 subsystem was abended because a DB2 latch, critical to the Deferred End of Task (EOT) Termination process, was held by an MVS dispatchable unit, normally in an allied address space, which was no longer being dispatched and was, therefore, unable to release the latch.

This abend reason code is issued by the following CSECTs:

DSN3SSES	DSN3SSI1	DSN3SSI2
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System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: DB2 may be started again after it terminates. The system programmer should be notified.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC entries should be available.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error associated with an allied address space and especially in the case where the allied address space has been forced to an end-of-memory condition.

The console output should be examined for errors associated with allied address spaces.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F3041A

Explanation: An ESTAE could not be established by the deferred end-of-task (EOT) processor. This error could occur only during DB2 subsystem startup. Probably, an ESTAE could not be established because of a shortage of LSQA space.

This abend reason code is issued by the following CSECT: DSN3EOTS

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If the failure persists, increase the size of the system services address space private area.

Problem Determination: An SVC dump and associated SYS1.LOGREC entry should be available.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F3041B

Explanation: The deferred end-of-task (EOT) processor could not locate an AGNT block for the ACE of the agent in abnormal termination. This is a system error.

This abend reason code is issued by the following CSECT: DSN3EOTS

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry and associated SVC dump were requested. Register 8 at the time of the abend contains the ACE pointer. The AGNT block whose AGNTEB field points to the EB contained within the ACE could not be located.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F3041C

Explanation: The DB2 subsystem was abended because of a failure of a MEMTERM request for an allied address space.

This abend reason code is issued by the following CSECTs: DSN3SSI1, DSN3SSES

System Action: The DB2 subsystem is terminated.

User Response: Notify the system programmer.

Operator Response: DB2 can be started again after it terminates.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3SSES recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and the SVC dumps should be examined to determine the cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F30420

Explanation: A failure occurred during deferred end-of-task (EOT) processing for an agent.

This abend reason code is issued by the following CSECT: DSN3EOTS

System Action: The DB2 subsystem is terminated.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Determine the module that failed and the registers at the time of the error. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: A SYS1.LOGREC entry and associated SVC dump were requested.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F30429

Explanation: A DB2 subsystem task (normally a service task) going through end-of-task (EOT), or one of its terminating ancestor tasks, was a DB2 must-complete function or was still holding one or more DB2 latches.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The DB2 subsystem is terminated with an SVC dump.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: At least one SVC dump and associated SYS1.LOGREC record(s) are available. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has recorded data in SYS1.LOGREC and requested an SVC dump. The SYS1.LOGREC record(s) and SVC dump should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2.

00F30450

Explanation: CSECT DSN3CLOX could not establish an ESTAE during the processing of an identify SSI call. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECT: DSN3CLOX

System Action: The allied address space is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry the identify request. If a dump is available, review the virtual storage manager's control blocks to determine if all of the private area has been allocated. If necessary, increase the private area size of the allied address space.

Problem Determination: A dump should be produced by the allied task.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30451

Explanation: CSECT DSN3SSI1 could not establish its ESTAEs during the processing of an identify SSI call. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The allied task is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry the identify request. If a dump is available, review the virtual storage manager's control blocks to determine if all of the private area has been allocated. If necessary, increase the private area size of the allied address space.

Problem Determination: A dump should be produced by the allied task.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30452

Explanation: CSECT DSN3ID30 could not establish an ESTAE during the processing of an identify SSI call. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECTs: DSN3ID30, DSN3SI30

System Action: The allied task is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry the identify request. If a dump is available, review the virtual storage manager's control blocks to determine if all of the private area has been allocated. If necessary, increase the private area size of the allied address space.

Problem Determination: A dump should be produced by the allied task.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30453

Explanation: CSECT DSN3SSI1 could not establish its ESTAEs during the processing of an SSI call other than FEOT, EOM, HELP, COMMAND, and IDENTIFY. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The allied task is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry the request. If a dump is available, review the virtual storage manager's control blocks to determine if all of the private area has been allocated. If necessary, increase the private area size of the allied address space.

Problem Determination: A dump should be produced by the allied task.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30454

Explanation: After discovering an error during the processing of an SSI call, module DSN3SSI1's retry routine found an unknown retry point when it was attempting to retry into the mainline code. This is a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSN3SSI1

System Action: The allied task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry the relevant SSI call. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The recovery routine DSN3SSES has recorded data on the SYS1.LOGREC data set and requested an SVC dump. The SYS1.LOGREC entries and SVC dump(s) should be examined to determine the cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30455

Explanation: CSECT DSN3ID80 could not establish its ESTAE during the processing of the identify termination request. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECT: DSN3ID80

System Action: The allied task is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry

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the request. If a dump is available, review the virtual storage manager's control blocks to determine if all of the private area has been allocated. If necessary, increase the private area size of the allied address space.

Problem Determination: A dump should be produced by the allied task.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30456

Explanation: CSECT DSN3TM00 could not identify its caller. The only callers supported are: EOT, EOM, RIUR, and CNCL.

This abend reason code is issued by the following CSECT: DSN3TM00

System Action: The calling task is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The caller's recovery routine may record on the SYS1.LOGREC data set and request an SVC dump. Module DSN3TM00 caller's parameter list, recorded in the trace entry, should be examined to determine the cause of the error, and new caller support should be added to DSN3TM00, if necessary.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30457

Explanation: CSECT DSN3TM00 found that the agent termination did not take place after an extra termination request (DSNARARQ).

This abend reason code is issued by the following CSECT: DSN3TM00

System Action: The caller is abended. The caller may, in many cases, eventually abend the DB2 subsystem.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The caller's recovery routine records on the SYS1.LOGREC data set and requests an SVC dump. The error indicates that there may be a problem with the subsystem support subcomponent

termination routines (namely DSN3ID80, DSN3SI80, and/or DSN3CT80).

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30458

Explanation: The DB2 subsystem is abended because a user-exit module, either DSN3@ATH or DSN3@SGN, is not link-edited with the AMODE (31) attribute.

This abend reason code is issued by the following CSECT: DSN3AMI1

System Action: Subsystem start-up is terminated.

Operator Response: DB2 may be restarted after the link-edit attributes of DSN3@ATH and/or DSN3@SGN have been changed to AMODE (31) RMODE (ANY).

System Programmer Response: Link-edit the user-exit module, specifying the attributes AMODE (31) RMODE (ANY).

Problem Determination: Refer to the JCL specifying link-edit attributes for the user exit module.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 4.

00F30459

Explanation: The DB2 connection associated with an allied TCB could not be terminated. A RARQ request to terminate the connection could not be issued because either:

- The Resource Access List (RAL) address was zero in field ACERAL, or
- The SSAM Function Vector List (FVL) address in the RAL was zero.

This abend reason code is issued by the following CSECT: DSN3TM00

System Action: The DB2 subsystem is terminated with a reason code of X'00F30420'.

Operator Response: Notify the system programmer.

System Programmer Response: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is a DB2 internal error. Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30460

Explanation: The application is running in a WLM-established stored procedure address space and is attempting to connect to DB2 using a type of DB2 Attach other than RRSAF.

System Action: The application is abended.

Operator Response: Notify the system programmer.

Programmer Response: Modify, relink and rerun the application.

System Programmer Response: Use the MVS VARY WLM,APPLENV=name,REFRESH command to refresh the load module in storage.

Problem Determination: The problem may be that the Stored Procedure is link edited with or has loaded the DB2 call attachment facility language interface module DSNALI. Stored procedures that run in WLM-established address spaces must be link edited with or must load the RRS attachment facility language interface module DSNRLI.

This abend reason code is issued by the following CSECTs: DSN3ID30

00F30461

Explanation: DB2 was unable to successfully restart with OS/390 RRS because of an internal error in either DB2 or OS/390 RRS.

System Action: DB2 is not connected to RRS and all services dependent on that connection are unavailable. This means that applications may not connect to DB2 using RRSAF and that WLM-established address spaces may not be used for DB2 stored procedures until DB2 successfully restarts with OS/390 RRS.

Operator Response: Notify the system programmer.

System Programmer Response: Stop and then start OS/390 RRS. Stop and then start DB2. If the problem persists, perform an OS/390 RRS cold start. Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination:

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

This abend reason code is issued by the following CSECTs: DSN3RRSR, DSN3RRRS.

00F30501

Explanation: A nonzero return code has been received from the system parameter manager (SPM) subcomponent of DB2 when attempting to read a descriptor from the DSN3DIR1 directory. This descriptor is required in order to complete processing of the active

sign-on or create thread. This is a serious error.

This abend reason code is issued by the following CSECTs: DSN3CT30, DSN3SI30

System Action: The requester is abended, and the request is not processed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump should be available. Either the module issuing the abend has made an error in compounding the descriptor name (it is a concatenation of connection type and indicators representing the request type) or the descriptor, or information in the DSN3DIR1 directory is incorrect.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30502

Explanation: A nonzero return code was received from agent service's create allied agent function during an identify or sign-on request. This indicates an allocation error that should not occur for these levels of capability.

This abend reason code is issued by the following CSECTs: DSN3ID50, DSN3SI30

System Action: The requester is abended, and the request is not processed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries should be available. Examine the DB2 trace table to determine which resource manager triggered the error indication. Also, the DSN3DIR1 entry for the appropriate protocol should be checked to ensure that only SSAM is specified to participate in allocation.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30503

Explanation: The member DSN6SYSP is missing from DSNZPARM.

This abend reason code is issued by the following CSECT: DSN3AMI1

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System Action: DB2 start-up is terminated.

System Programmer Response: Refer to the coding procedure for DSNZPARM in Part 2 of *DB2 Installation Guide*.

Problem Determination: DSN6SYSP CSECT is missing from the DSNZPARM load module.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30571

Explanation: This reason code is returned when a DB2 program attempts to UNSPECIFY an already inactive Program Request Handler (PRH). The indicated PRH is inactive. This reason code merely provides extra information.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

00F30572

Explanation: This reason code is returned when a DB2 program attempts to SPECIFY a Program Request Handler (PRH) and there was one already active. The new specification overlays the older specification.

This reason code is not normally visible to users or operators, but may appear in DB2 traces.

This DB2 reason code is issued by the following CSECT: DSN3SPRX

System Action: The new specification replaces the old one.

00F30573

Explanation: The invoker of DSN3SPRH specified an invalid value for a resource access list entry (RALE). The RALE is outside the limits of those supported by the application program support CALL routine. (The application program support CALL routine routes control to the program request handlers.)

This abend reason code is issued by the following CSECT: DSN3SPRX

System Action: The requester is abended, and the request is not processed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump and associated SYS1.LOGREC entries are produced by a DB2 service. Register 2 at the entry to the abend

contains the resource access list element (RALE) value passed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30574

Explanation: The invoker of DSN3SPRH specified an invalid request qualifier (QUAL) value. The QUAL is outside the limits of those supported by the application program support call routine that routes control to the program request handlers (PRHs).

This abend reason code is issued by the following CSECT: DSN3SPRX

System Action: The requester is abended, and the request is not processed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump and SYS1.LOGREC entry are produced by a DB2 resource manager. Register 2 at the entry to the abend contains the QUAL value passed.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30580

Explanation: The DSN3CONN request for the EOM, first EOT or identify SSI call during the 'release-work' notification has resulted in a nonzero return code (see message DSN3580I).

This abend reason code is issued by the following CSECT: DSN3AMI2

System Action: The requester is abended.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The original return and reason code appear in the DSN3580I message issued by DSN3AMI2. An SVC dump and associated SYS1.LOGREC entries are produced by some DB2 resource manager.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30581

Explanation: CSECT DSN3AMI2 found an unknown type of notify message in a message buffer. This is a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSN3AMI2

System Action: An abend is issued, and the startup/shutdown ESTAE creates a SYS1.LOGREC entry and take an SVC dump.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: Examine the SYS1.LOGREC entries and SVC dumps. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The SVC dump that is produced contains the relevant material for problem analysis. These buffers are set up by DSN3CL0X.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30597

Explanation: A protocol violation has been detected for an identify request. A noncoordinator identify request has been requested from a task that is not a subtask of the active coordinator. This occurs for protocols only where TCB hierarchy must be observed (SASS) and only when a coordinator has already identified itself to DB2.

This abend reason code is issued by the following CSECT: DSN3ID30

System Action: The allied task is abended, and the request is not processed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump may be produced by the allied address space.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30598

Explanation: A protocol violation has been detected for an identify request. A noncoordinator identify request has been requested in a PSW key different from KEY of the active coordinator at its identify. This occurs only

when a coordinator has already identified itself to DB2.

This abend reason code is issued by the following CSECT: DSN3ID30

System Action: The allied task is abended, and the request is not processed.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: An SVC dump may be produced by the allied address space.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30599

Explanation: The allied memory function of the subsystem support subcomponent (SSAM) has attempted to remove an AGNT block (representing a connected allied coordinator task) from the chain of active AGNT blocks before all the dependent AGNT blocks have been removed. This AGNT block would normally be removed only during SSAM terminate processing or during EOT processing for the coordinator task. However, in these cases, dependents are terminated bottom up, and this situation, if it occurs, is a serious one. This message probably represents a logic error in the subsystem support subcomponent's allied memory function (SSAM).

This abend reason code is issued by the following CSECT: DSN3UNCH

System Action: The requesting SSAM module is abended. The connection name associated with the error is probably unable to continue communication with DB2 until DB2 is terminated and restarted.

Operator Response: Notify the system programmer. If necessary, stop and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has created SYS1.LOGREC entries and requested an SVC dump. The SYS1.LOGREC entries and SVC dumps should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30601

Explanation: Asynchronous events occurred which caused the premature termination of the thread. The thread could not be recovered.

There may be other abends or messages concerning this allied user indicating what the asynchronous events were.

This abend reason code is issued by the following CSECTs:

DSN3ID30 DSN3RIA0 DSN3RIM0

System Action: The allied user is abended with code X'04E' and this reason code.

Operator Response: The system programmer should be notified.

System Programmer Response: An SVC dump associated SYS1.LOGREC entries and SYSLOG should be available. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30610

Explanation: CSECT DSN3AMT3 could not establish an ESTAE during the processing of an 'end stop-work force' notification. This can occur if the current address space (usually system services) has insufficient storage. This may lead to abnormal termination of DB2.

This abend reason code is issued by the following CSECT: DSN3AMT3

System Action: The caller is abended (without ABDUMP).

Operator Response: Notify the system programmer and, if necessary, restart DB2.

System Programmer Response: If necessary, increase the private area size of the failing address space.

Problem Determination: An SVC dump and related SYS1.LOGREC entry are requested by the initialization procedures (IP) subcomponent job-step task.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30801

Explanation: The DB2 subsystem was abended by module DSNAPRHX. DSNAPRHX was called and the request was passed on to the DB2 subsystem. However, upon return, it was discovered that the

requesting (calling) TCB was in a DB2 must-complete function or was still holding DB2 latches.

This abend reason code is issued by the following CSECT: DSNAPRHX

System Action: The DB2 subsystem is terminated. An MVS SVC dump is requested.

Operator Response: Notify the system programmer, and restart DB2.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: This is usually caused by a previous error that has created SYS1.LOGREC entries and requested an SVC dump. The SYS1.LOGREC entries and SVC dumps should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30802

Explanation: CSECT DSNAPRHX, on the return path (normal nonerror path) from the requested function, found that the FRBUDATA flag was on. This is a DB2 subsystem error.

This abend reason code is issued by the following CSECT: DSNAPRHX

System Action: The requesting task gets the FRB return and reason codes as set by the requested function. The task is not abended.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The SYS1.LOGREC entries and SVC dump should be examined to determine the actual cause of the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30803

Explanation: CSECT DSNAPRHX could not establish its ESTAE during the processing of an application program support call. This can occur if the current address space has insufficient storage.

This abend reason code is issued by the following CSECT: DSNAPRHX

System Action: The allied task is abended (without ABDUMP).

Operator Response: Notify the system programmer.

System Programmer Response: The user may retry the request. If necessary, increase the private area size of the application address space.

Problem Determination: The allied task may have requested an SVC dump.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F30805

Explanation: The caller's connection with DB2 has been terminated, because the DB2 subsystem has terminated or is in the process of terminating abnormally.

This abend reason code is issued by the following CSECT: DSNAPRHX

System Action: The request may have been processed or aborted.

User Response: The requester may identify to DB2 when it becomes operational again.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5.

00F30901

Explanation: DB2 has lost its cross-memory authority to an allied address space because the ally has released its authorization index.

This reason code is issued by the following CSECT: DSN3SSES

System Action: The allied address space is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5

00F30902

Explanation: DB2 has detected a recursive abend condition while processing end-of-task for a task in an allied address space.

This reason code is issued by the following CSECT: DSN3SSES

System Action: The allied address space is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5

00F30903

Explanation: An abend has occurred while processing End-of-Task for the control address space or a resource manager address space.

This reason code is issued by the following CSECT: DSN3SSES

System Action: The address space is forced to end-of-memory with this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5

00F30904

Explanation: End-of-Task occurred for the control address space or a resource manager address space and DB2 could not establish an ESTAE to protect its processing. Insufficient storage may be the reason the ESTAE could not be established.

This reason code is issued by the following CSECT: DSN3SSI1

System Action: The address space is forced to end-of-memory with this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5

Problem Determination: Attempt to determine if one or more DB2 address spaces is storage-constrained. Examination of the console output for the time period preceding this condition may reveal other messages or indications that the terminating address space was storage-constrained.

00F30905

Explanation: End-of-Task occurred for the job step task in an allied address space. DB2 would normally attempt to terminate the address space's connection to DB2 but was unable to protect its processing by establishing an ESTAE. Insufficient storage may be the reason the ESTAE could not be established.

This reason code is issued by the following CSECT: DSN3SSI1

System Action: The address space is forced to end-of-memory with this reason code.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 5

Problem Determination: Attempt to determine if one or more allied address spaces is storage-constrained. Examination of the console output for the time period preceding this condition may reveal other messages or indications that the terminating allied address space was storage-constrained.

00F33100

Explanation: The DB2 thread is 'read-only'.

This reason code is issued by the following CSECT: DSN3PR00

System Action: A prepare issued by the application program was processed through Phase 1. DB2 discovered there were no resources modified and no need for commit or abort to be subsequently issued.

User Response: May effect a path length savings by not issuing the subsequent commit or abort which normally follows prepare. No further action is required to complete the unit of recovery; the unit of recovery is complete.

00F3AFFF

Explanation: An unrecoverable error return code was received from the RACROUTE REQUEST=VERIFY macro service. The return code was other than 0, 4, or 8.

This abend reason code is issued by the following CSECT: DSN3@SGN

System Action: The SIGNON request is abended. An SVC dump is requested by DB2 functional recovery.

Operator Response: Notify the system programmer.

System Programmer Response: If you suspect an

error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The abend with this reason code is issued by the sample SIGNON exit after the implementation in the user's installation. It indicates that an unrecoverable error occurred with the RACROUTE REQUEST=VERIFY macro service.

GPR 2 at the time of abend will contain the original RACROUTE return code from GPR 15. GPR 3 at the time of abend will contain the reason code returned by the RACROUTE macro service in GPR 0, if any.

Refer to *Resource Access Control Facility (RACF) System Programmer's* for descriptions of the RACROUTE return and reason codes.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

Chapter 57. X'F7.....' codes

00F70001

Explanation: DB2 could not find the system parameters CSECT DSN6GRP.

System Action: The DB2 subsystem terminates.

Operator Response: Restart DB2 with the correct system parameters load module. If the problem reoccurs, notify the system programmer.

System Programmer Response: Investigate the system parameters load module.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7SINI

00F70002

Explanation: DB2 data sharing was requested, but MVS was not at the required level. You must use MVS Version 5 Release 1.0 or a later release.

System Action: The DB2 subsystem terminates.

Operator Response: Restart DB2 on a system with MVS Version 5 Release 1.0 or a later release.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7SINI

00F70003

Explanation: The DB2 subsystem parameters specified that data sharing should be active. DB2 startup checking failed for either of two reasons:

- The group and member names contained in the subsystem parameters are not equal to the group and member names contained in the DB2 *ssnmMSTR* JCL start procedure, or
- The DB2 member is already active on another MVS system.

System Action: DB2 terminates.

Operator Response: Make sure the correct subsystem parameter load module name was specified for the DB2 that failed to start. Restart DB2 with the correct subsystem parameter name.

System Programmer Response: Make sure the subsystem parameter name specified is the correct one for the DB2 subsystem and is not for a different member or group. You cannot share subsystem

parameters among the members of a data sharing group. Make sure the group and member names specified in the subsystem parameters are equal to the group and member names contained in the DB2 *ssnmMSTR* JCL start procedure.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7SINI

00F70401

Explanation: DB2 could not find the system parameters CSECT DSN6GRP.

System Action: The DB2 subsystem terminates.

Operator Response: Restart DB2 with the correct system parameters load module. If the problem reoccurs, notify the system programmer.

System Programmer Response: Investigate the system parameters load module.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7GINI

00F70402

Explanation: DB2 could not create a service task for the group basic services function.

System Action: The DB2 subsystem terminates.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7GCTK

00F70403

Explanation: DB2 could not find the system parameters CSECT DSN6SPRM.

System Action: The DB2 subsystem terminates.

Operator Response: Restart DB2 with the correct system parameters load module. If the problem reoccurs, notify the system programmer.

System Programmer Response: Investigate the system parameters load module.

Problem Determination: If you suspect an error in

00F70404 • 00F70409

DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT:
DSN7GCHK

00F70404

Explanation: DB2 could not open the SCA member information record.

System Action: DB2 terminates.

Operator Response: Check if the CF SCA structure is allocated. Restart DB2. If the problem occurs again, notify the system programmer.

System Programmer Response: Check if correct policy is active.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT:
DSN7GCHK

00F70405

Explanation: DB2 encountered an unexpected error while trying to read from or write to the shared communications area (SCA).

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECTs: DSN7GJON, DSN7GRMA.

00F70406

Explanation: DB2 issued an XCF macro IXCQUERY, but it failed. (XCF is the cross-system coupling facility component of MVS.)

System Action: The DB2 subsystem terminates.

Operator Response: Check the MVS console for XCF-related error messages. Issue an MVS DISPLAY XCF,GROUP command to ensure that XCF is functional. Then try to restart the DB2 subsystem. If the problem reoccurs, notify the system programmer.

System Programmer Response: Investigate the reason for this unexpected error. Refer to *MVS/ESA Programming: Sysplex Services Reference* for information about XCF return and reason codes.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and*

Reference for information on identifying and reporting the problem.

This code is issued by the following CSECT:
DSN7GJON

00F70407

Explanation: This is a DB2 internal error. The member name and member ID do not match in the BSDS, the XCF function data set or the SCA structure.

System Action: The DB2 subsystem terminates.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT:
DSN7GJON

00F70408

Explanation: DB2 issued an MVS XCF IXCJOIN request, but it failed. (XCF is the cross-system coupling facility component of MVS.)

System Action: The DB2 subsystem terminates.

Operator Response: Check the MVS console for XCF-related error messages. Issue an MVS DISPLAY XCF,GROUP command to ensure that XCF is functional. Then try to restart the DB2 subsystem. If the problem reoccurs, notify the system programmer.

System Programmer Response: Investigate the reason for this unexpected error. Refer to *MVS/ESA Programming: Sysplex Services Reference* for information about XCF return and reason codes.

Problem Determination: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT:
DSN7GJON

00F70409

Explanation: DB2 encountered an unexpected error while trying to read from or write to the local bootstrap data set (BSDS).

System Action: The requesting execution unit abends. A SYS1.LOGREC entry is written and an SVC dump is requested.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSN7GJON

00F7040A

Explanation: DB2 detected an unexpected error during deletion of a DB2 service task.

System Action: DB2 terminates.

System Programmer Response: Investigate the problem and call the IBM support center.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSN7GTRM

00F70410

Explanation: DB2 detected an unexpected error during IRLM locking.

System Action: DB2 terminates.

System Programmer Response: Investigate the problem.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSN7GJON

00F70600

Explanation: The connection to the shared communications area (SCA) was lost.

System Action: DB2 terminates because DB2 data sharing cannot function without the SCA.

User Response: Notify the system programmer.

System Programmer Response: Figure out why the SCA link to this central processor complex (CPC) is lost and correct the problem. Then restart DB2.

Problem Determination: If there is an active SFM policy which specifies that a rebuild of the SCA should occur, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This code is issued by the following CSECT: DSN7LST3

00F70601

Explanation: The shared communications area (SCA) structure failed. DB2 initiated dynamic rebuild of the structure. However, the rebuild process failed and DB2 cannot continue without the SCA.

System Action: DB2 terminates.

User Response: Notify the system programmer.

System Programmer Response: Correct the SCA

structure and restart DB2. If all DB2s in the group terminate with this code, the next DB2 restart might do a group restart.

Problem Determination: This code is issued by the following CSECTs: DSN7LST2, DSN7LST3.

00F70602

Explanation: DB2 cannot connect to the shared communications area (SCA) coupling facility structure.

System Action: Because DB2 data sharing cannot function without the SCA, DB2 terminates.

User Response: Notify the system programmer.

System Programmer Response: Refer to message DSN7506I for more information

Problem Determination: This abend reason code is issued by the following CSECTs: DSN7LSTK, DSN7LST2.

00F70603

Explanation: DB2 encountered an error in accessing the shared communications area (SCA) coupling facility structure.

System Action: Since DB2 data sharing cannot function without the SCA, DB2 terminates.

User Response: Notify the system programmer.

System Programmer Response: Refer to message DSN7508I for more information.

Problem Determination: This code is issued by the following CSECTs:

DSN7LRE1 DSN7LRO1 DSN7LWR1 DSN7LDE1

00F70604

Explanation: DB2 cannot rebuild the shared communications area (SCA) coupling facility structure.

System Action: Because DB2 data sharing cannot function without the SCA, DB2 terminates.

User Response: Notify the system programmer.

System Programmer Response: Refer to messages DSN7506A and DSN7508I for more information

Problem Determination: This abend reason code is issued by the following CSECT: DSN7LSTK

00F70605

Explanation: DB2 cannot create a needed service task. This is a DB2 internal error.

System Action: DB2 terminates.

User Response: Notify the system programmer.

00F70606 • 00F70609

System Programmer Response: Investigate the problem.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSN7LCTK

00F70606

Explanation: DB2 detected an unexpected error. This is a DB2 internal error.

System Action: DB2 terminates.

User Response: Notify the system programmer.

System Programmer Response: Investigate the problem.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. This abend reason code is issued by the following CSECTs: DSN7LSUS, DSN7LEST.

00F70607

Explanation: DB2 detected that the shared communications area (SCA) coupling facility structure reached the directory entry limit of 200.

System Action: DB2 terminates because DB2 data sharing cannot function without the SCA.

User Response: Notify the system programmer.

System Programmer Response: Investigate the problem.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

This abend reason code is issued by the following CSECT: DSN7LOP1

00F70608

Explanation: DB2 detected an unexpected error. This is a DB2 internal error.

System Action: DB2 terminates.

User Response: Notify the system programmer.

System Programmer Response: Investigate the problem.

Problem Determination: Refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem. This abend reason code is issued by the following CSECTs: DSN7LOP1, DSN7LUTL.

00F70609

Explanation: The SCA structure is full.

System Action: The DB2 that was writing an entry in the SCA terminates since the critical function cannot go on without the SCA entrywritten.

System Programmer Response: Refer to *DB2 Data Sharing: Planning and Administration* for a full description of actions in the SCA full scenario section.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353:

This abend reason code is issued by the following CSECT: DSN7LWRI

Chapter 58. X'F9.....' codes

An entry in the SYS1.LOGREC data set is requested for all of the following abnormal termination conditions. The SDWA variable recording area (VRA) contains the information provided by the DSNWRCRD function. When VRA space permits, the recordable section of the diagnostic data table (DDT control block) is also placed in the VRA. If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

All general command processor modules use register 10 as a base register. This may be helpful when attempting to match a register value to a module map.

00F90000

Explanation: A command processor has been invoked via the application program support function while the local lock of the caller's address space was held. CSECT DSN9SCNF tried to obtain the lock in order to obtain a response message buffer, but it was unable to do so. This represents a logic error in the function that submitted the command to the application program support function.

This abend reason code is issued by the following CSECT: DSN9SCNF

System Action: Command execution was abended. If the command was properly entered, it may have been partially or completely executed.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed. It may be necessary to restart the attachment (IMS or CICS).

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see Chapter 58, "X'F9.....' codes."

00F90001

Explanation: A command processor has been invoked via the application program support function. CSECT DSN9SCNF obtained the LOCAL lock of the caller's address space prior to obtaining a response message buffer, but was then unable to release the lock. This condition, if it occurs, is a serious one.

This abend reason code is issued by the following CSECT: DSN9SCNF

System Action: Command execution was abended. If the command was properly entered, it may have been partially or completely executed.

Operator Response: Print the contents of the

SYS1.LOGREC data set. If a dump was produced, have it printed. It may be necessary to restart the attachment (IMS or CICS).

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see Chapter 58, "X'F9.....' codes."

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F90002

Explanation: The routines of the multiple console support (MCS) service of MVS were unable to initialize. CSECT DSN9SCNM attempted to create the console task controller service task, but the task was not successfully created. This condition may indicate a problem in the address space. If it occurs, this is a serious error.

This abend reason code is issued by the following CSECT: DSN9SCNM

System Action: Subsystem initialization is aborted, causing the DB2 subsystem to terminate.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed. Restart the DB2 subsystem.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see Chapter 58, "X'F9.....' codes."

Collect the following diagnostic items listed in

Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F90003

Explanation: The routines of the multiple console support (MCS) service of MVS were unable to initialize. CSECT DSN9SCNM or DSN9SCN6 attempted to create a console service task but the task was not successfully created. This condition, if it occurs, is a serious one.

This abend reason code is issued by the following CSECTs: DSN9SCN6, DSN9SCNM

System Action: If the abend was issued by CSECT DSN9SCNM, DB2 subsystem initialization is aborted, causing the DB2 subsystem to terminate. If the abend was issued by CSECT DSN9SCN6, the command from the associated console is executed under a different service task and should proceed normally.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see Chapter 58, "X'F9.....' codes," on page 1301.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F90004

Explanation: The routines of the multiple console support (MCS) service of MVS detected a logic error. CSECT DSN9SCN7 received a return code from the command preprocessor (the DSN9CMD service) that indicated an intolerable condition. A return code of X'04' is issued if the DSN9CMD calling parameters are invalid (the command text length is not a positive number or the PHB address is zero).

A return code of X'24' is provided if storage for a tokenized command statement (TCS) cannot be obtained from the global storage pool obtained by CSECT DSN9SCNP. The TCS storage request is the first storage request made using this pool. This is not a user error.

This abend reason code is issued by the following CSECT: DSN9SCN7

System Action: The command was not executed.

Operator Response: Print the contents of the

SYS1.LOGREC data set. If a dump was produced, have it printed.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see Chapter 58, "X'F9.....' codes," on page 1301.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F90005

Explanation: A routine of the multiple console support (MCS) service of MVS was not able to create an ESTAE recovery environment. This condition is detected when the ESTAE service of MVS returns a nonzero return code. The command from the associated MCS console is not executed. Refer to the appropriate MVS publication for an explanation of ESTAE return codes.

This abend reason code is issued by the following CSECTs:

DSN9SCN5 DSN9SCN6 DSN9SCN7

System Action: Command processing is terminated.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: If available, the diagnostic data table (DDT control block) will appear in the SDWA variable recording area (VRA). For additional diagnostic information, see Chapter 58, "X'F9.....' codes," on page 1301.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F90006

Explanation: The agent allocation routine was not able to allocate command processing capability to an agent. This failure occurs, because there is a damaged control block in global storage (CSA). The control block is the command global data area (CGDA). The address of the CGDA is in the general command processor RMFTRUSE field. This is not a user error.

This abend reason code is issued by the following CSECT: DSN9SCNB

System Action: Agent allocation is terminated.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed. It may be necessary to restart the attachment (IMS or CICS) or the DB2 subsystem.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see Chapter 58, "X'F9.....' codes," on page 1301.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F90007

Explanation: The command parsing routines have attempted to update one of the command statistical counters that are kept in local storage. However, the counter control block validation field is wrong, indicating a damaged control block. The counter control block is located via the 'CGDASTA' address in the command global data area (CGDA) control block. The CGDA address is in the general command processor RMFTRUSE field. This is not a user error.

This abend reason code is issued by the following CSECT: DSN9SCN2

System Action: The statistical update is not completed. The statistics block address is cleared from the CGDA to prevent future failures. No further command statistical counts are maintained. Processing for the command is retried and should complete normally.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see Chapter 58, "X'F9.....' codes," on page 1301.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F90008

Explanation: The recovery manager control routine has been called, but register 6 did not contain the address of an execution block (EB) on entry to DSN9SCN9. Because recovery logic requires the address of the EB, CSECT DSN9SCN9 cannot proceed. The EB hexadecimal control block identifier and the block length are compared to known values in order to validate the EB address. This is not a user error.

This abend reason code is issued by the following CSECT: DSN9SCN9

System Action: The function requesting the recovery management service is abended.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed. It may be necessary to restart the attachment (IMS or CICS) or the DB2 subsystem.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see Chapter 58, "X'F9.....' codes," on page 1301.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F90009

Explanation: This reason code is used to document that CSECT DSN9SCN9 has added information to the SDWA variable recording area (VRA) following the data provided by the DSNWRCD service. If DSN9SCN9 records a failure in SYS1.LOGREC and the reason code in the VRA is not of the form X'00F9xxxx', the reason code is changed to X'00F90009'. This is done so that anyone examining a SYS1.LOGREC entry can determine, from the reason code, what additional data has been placed in the VRA. The reason code is the first data item in the VRA, as mapped by macro IHAVRA.

This abend reason code is issued by the following CSECT: DSN9SCN9

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see Chapter 58, "X'F9.....' codes," on page 1301.

00F9000A • 00F9000C

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F9000A

Explanation: The command parsing routines attempted to obtain a descriptor using the DSNZGDE service of the system parameter manager but the expected descriptor was not found (the DSNZGDE return code was X'04'). All descriptors used by the parser are contained in CSECT DSN9SCNA. This failure probably indicates incorrect data in CSECT DSN9SCNA.

This abend reason code is issued by the following CSECTs:

DSN9SCN4	DSN9SCN2	DSN9SCN1
----------	----------	----------

System Action: Command execution was abended. The command was not executed.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed. It may be necessary to restart the attachment (IMS or CICS) or the DB2 subsystem.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the SDWA variable recording area (VRA). For additional diagnostic information, see Chapter 58, "X'F9.....' codes," on page 1301.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F9000B

Explanation: The command parsing routines attempted to obtain storage from the storage pool (PHB) provided on a DSN9SCAN service request. Normally, this is CSA storage in the pool built by CSECT DSN9SCNP. The storage request could not be satisfied, either because no CSA storage was available or because an unreasonably large amount of storage was requested. The amount of storage requested is determined by the length of the command being parsed. Normally, it is several hundred bytes.

This abend reason code is issued by the following CSECT: DSN9SCN0

System Action: Command execution is abended.

Operator Response: Print the contents of the SYS1.LOGREC data set. If a dump was produced, have it printed. It may be necessary to restart the attachment

facility (IMS or CICS) or the DB2 subsystem.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The diagnostic data table (DDT control block) appears in the subsystem diagnostic work area (SDWA) variable recording area (VRA). Register 8 contains the address of the tokenized command statement (TCS) control block, and register 9 contains the requested storage length. The TCS is the DB2 internal representation of the command text. For additional diagnostic information, see Chapter 58, "X'F9.....' codes," on page 1301.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F9000C

Explanation: The command preprocessor (GCPC) mainline routine (DSN9SCNP) encountered a validation error when examining the message chains returned from the command processor.

The command processor invoked attempted to return a message formatted for inclusion in an MVS Multiple Line WTO.

This abend reason code is issued by the following CSECT: DSN9SCNP

System Action: Command execution is abended.

Operator Response: Notify the system programmer.

System Programmer Response: This error reflects a failure identified during DB2 internal protocol verification. The command in error is identified by message DSN90171. Register 8 points to the start of the response message chain returned by the command processor. Register 9 points to the message within the message chain that was found to be in error.

System Programmer Response: If you suspect an error in DB2, refer to Part 2 of *DB2 Diagnosis Guide and Reference* for information on identifying and reporting the problem.

Problem Determination: The GCPC Diagnostic Data Table (DSNDDDT Control Block) is recorded in the Variable Recording Area of the SDWA associated with the error.

Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 2, 5.

00F9000D

Explanation: The command preprocessor (GCPC) start-up routine (DSN9SCNE) discovered that the ERLY block is out-of-date. This error indicates that the current early code is not yet compatible with this version of DB2; a required early code PTF is missing.

This abend reason code is issued by the following CSECT: DSN9SCNE

System Action: The DB2 subsystem start-up is terminated.

Operator Response: Notify the system programmer.

System Programmer Response: Check the Program Directory, apply the required early code PTF and re-IPL MVS.

Part 5. IRLM messages and codes

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Chapter 59. IRLM messages and codes

This section describes all messages, error return and reason codes, and abend reason codes issued by the internal resource lock manager (IRLM). The database management system (DBMS) referred to throughout the messages and codes is either DB2 or IMS. Some messages and codes do not apply to DB2 operations.

IRLM messages

This section describes messages for the resource lock manager (IRLM) subcomponent.

The messages have the form of DXRxxx and are listed in numeric order.

DXR The prefix for IRLM messages.

xxx The numeric part of the message.

a An alphabetic suffix, as follows:

I The message is for information only.

E The message reports an error condition which might require action.

A Action is required of the user before processing can continue.

IRLM will now direct messages in two ways:

1. If a UN-solicited message is to be issued, the target "console" will be the one in which IRLM was started from.
2. If a solicited message is to be issued, i.e. via "F IRLM,STATUS" opercmd, it will automatically be directed back to the console from which the modify was accepted. Even if it was a TSO session running SDSF.

All messages contain the issuing IRLM subsystem name and ID, *irlmx* where, *irlmx* is the concatenation of the IRLMNM and IRLMID specified as EXEC parameters when the IRLM was started, as shown below.

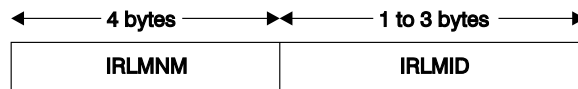


Figure 3. Format of irlmx

If IRLMNM='KRLM' and IRLMID='12' then irlmx='KRLM012'
 If IRLMNM='LRLM' and IRLMID='0' then irlmx='LRLM000'

The IRLMID is displayed as three characters in the messages.

```

DXR100I irlmx STOR STATS PC: pc PVT:pvt
LTE:lte RLE:rle RLEUSE:rleuse CSA
USE: ACNT: acnt AHWM: ahwm CUR:
cur HWM: hwm ABOVE 16M: segabove
storabove BELOW 16M: segbelow
storbelow

:
CLASS TYPE SEGS MEM TYPE SEGS MEM TYPE SEGS MEM
class type segs mem type segs mem type segs mem
    
```

Explanation: This message is issued in response to the following command:
 F irlmproc,STATUS,STOR

A brief summary of selected storage usage is displayed where:

pc this value is always YES, regardless of the value in the irlmproc or passed at startup.

pvt this represents the extended private storage

region limit threshold that will be monitored for LOCK control blocks. When this limit is reached, new LOCK requests will get an RC08 "out-of-storage" reason code unless they are MUST COMPLETE requests. The default value is determined from the size of the extended private storage value minus 10% for a non-lock buffer to be used for IRLM and system required storage. This value can be modified by the IRLM MODIFY command F ir1mproc,SET,PVT=. See the IRLM modify command in the *DB2 Command Reference* for more information.

lte is valid only when SCOPE=GLOBAL or NODISCON. The value represents the number of Lock Table Entries in units of 1048576, available in the Coupling Facility the last time this IRLM was connected to the group. If less than 1 unit, the value will be zero. It may be set initially with the LTE parameter in the ir1mproc, and can be modified with the IRLM modify command F ir1mproc,SET,LTE=. See the IRLM MODIFY command in the *DB2 Command Reference* for more information.

rle is valid only when SCOPE=GLOBAL or NODISCON. The value represents number of Record List Entries available in the Coupling Facility during the last time this IRLM was connected to the group.

rleuse is valid only when SCOPE=GLOBAL or NODISCON. The value represents the number of RLE that were in use in the Coupling Facility at the time that the MODIFY command is issued. If the IRLM is DISCONNECTED from the CF, this number represents the number of RLE in use when last updated prior to DISCONNECT.

acnt this value is the accountable extended private storage used for lock control structures. This value is specified as either xxxK for kilobytes or xxxM for megabytes.

ahwm this value is the High Water Mark or greatest amount of extended private storage allocated by IRLM during this initialization period for lock control structures. Its value specified as either xxxK for kilobytes or xxxM for megabytes.

cur is the current CSA + ECSA usage. Its value is specified as either xxxK for kilobytes or xxxM for megabytes.

hwm is the High Water Mark or greatest amount of CSA + ECSA allocated by IRLM during this initialization period. Its value is specified as either xxxK for kilobytes or xxxM for megabytes.

segabove the number of IRLM control block segments above 16M. Its value is the number of control block segments.

storabove the storage allocated to the segments in *segabove*. Its value is the storage allocation specified as either xxxK for kilobytes or xxxM for megabytes.

segbelow the number of IRLM control block segments below 16M. Its value is the number of control block segments.

storbelow the storage allocated to the segments in *segbelow*. Its value is the storage allocation specified as either xxxK for kilobytes or xxxM for megabytes.

class specifies the category of storage. These are: "ACCNT", "PROC", and "MISC". "ACCNT" describes the storage allocated to IRLM lock control blocks. "PROC" describes the storage allocated to IRLM structures used for IRLM processing (including requests). This storage includes CSA, ECSA, and IRLM private storage. "MISC" describes the storage allocated for the rest of IRLM's needs. This includes trace buffers and other diagnostic structures. This storage includes CSA, ECSA, and IRLM private storage.

type specifies the sub-category for CLASS. For example, T-1 is storage for resource block structures; T-2 is storage for resource request structures, and T-3 is storage for requestor structures. The storage for types T-1, T-2, and T-3 is allocated from IRLM private storage.

segs the number of storage segments allocated

mem the storage specified as either xxxK for kilobytes or xxxM for megabytes.

The following is sample output when the parameter PC = YES:

```
DXR100I JR21002 STOR STATS
PC: YES  PVT  : 1500M  LTE:   16M  RLE:  231410  RLEUSE:  20
CSA USE: ACNT: 500K  AHWM:  50M  CUR:  4362K  HWM:  5830K
          ABOVE 16M:   78 4308K  BELOW 16M:   44   53K
CLASS  TYPE SEGS  MEM TYPE SEGS  MEM TYPE SEGS  MEM
ACCNT  T-1   1   64K  T-2   1   64K  T-3   1   4K
PROC   WRK  11  58K  SRB  41  41K  OTH   2   2K
MISC   VAR  68 4497K  N-V   6  22K  FIX   1  24K
```

System Action: Processing continues normally.

DXR101I *irlmx* STATUS SCOPE=*nnnnnn*
SUBSYSTEMS IDENTIFIED

:

NAME	STATUS	UNITS	HELD	WAITING	RET_LKS
<i>ssname</i>	<i>zzz</i>	<i>wun</i>	<i>reh</i>	<i>rew</i>	<i>rtlks</i>

Explanation: This message is issued in response to the following command:

F *irlmproc*,STATUS

A list of DBMSs identified to the IRLM is displayed. Work unit and lock information is displayed for each DBMS.

The message variables are:

nnnnnn One of the following:

LOCAL

SCOPE=LOCAL was specified as an EXEC parameter when the IRLM was started.

GLOBAL

SCOPE=GLOBAL was specified in the IRLMPROC and the IRLM is connected to a data sharing group.

DISCON

SCOPE=GLOBAL or SCOPE=NODISCON was specified in the IRLMPROC and the IRLM is not connected to a data sharing group.

NoDISC

SCOPE=NODISCON was specified in the IRLMPROC and the IRLM is connected to a data sharing group.

GINIT

SCOPE=GLOBAL was specified in the IRLMPROC and the IRLM is joining a data sharing group.

GTERM

SCOPE=GLOBAL was specified in the IRLMPROC and the IRLM is terminating from a data sharing group.

ssname

An eight-character DBMS name.

zzz

One of the following:

UP The DBMS is active.

DOWN The DBMS failed.

UP-RO The DBMS subsystem is active and is currently identified to the IRLM as a 'read-only' subsystem.

UP-NS The DBMS subsystem is active and is currently identified to the IRLM as a 'no-share' subsystem.

CLEANUP

The IRLM drove the DBMS STATUS exit, indicating a failure condition, and is waiting for that DBMS to respond with a PURGE, indicating cleanup is complete.

SFAIL The IRLM to which the DBMS is identified disconnected from the data sharing group. The modify locks for all the subsystems on that IRLM were retained by IRLM. All DBMSs that are identified to IRLMs disconnected from a data sharing group are listed as SFAIL by the surviving IRLMs.

wun The number of work units under the DBMS that are holding or waiting for a lock. No work units exist for a failed DBMS. The field is set to '...' for a failed DBMS.

reh The number of resources locked by the DBMS.

rew The number of waiting lock requests. No waiting requests are permitted for a failed DBMS. The field is set to '...' for a failed DBMS.

rtlks The number of retained locks held by a subsystem that failed or was running on an IRLM that failed. In most cases, retained locks are purged when a DBMS reidentifies to IRLM; therefore the number is zero for active DBMSs. However, it is possible for a DBMS to hold both active and retained locks if it is recovering from a previous failure.

If no DBMSs are identified to this IRLM, the line beginning with *ssname* is replaced with NO INFORMATION AVAILABLE.

System Action: Processing continues normally.

DXR102I *irlmx* STATUS SUBSYSTEMS
IDENTIFIED

:

XNAME	STATUS	XRET-LKS	IRLMID	IRLM_NAME	IRLM_LEVEL
<i>ssname</i>	<i>zzz</i>	<i>rtlks</i>	<i>id</i>	<i>iname</i>	<i>ilevl</i>

Explanation: This message is issued in response to the following commands:

F *irlmproc*,STATUS,ALLD
F *irlmproc*,STATUS,*irlmx*

where *irlmx* is the IRLMX + IRLMID fields as specified in the IRLMPROC whose status is requested.

A list of DBMSs identified to the IRLMs in the data sharing group is displayed.

The message variables are:

ssname

An 8-character DBMS name.

zzz

One of the following:

UP The DBMS is active.

DOWN The DBMS failed.

UP-RO The DBMS subsystem is active and is currently identified to the IRLM as a 'read-only' subsystem.

UP-NS The DBMS subsystem is active and is currently identified to the IRLM as a 'no-share' subsystem.

CLEANUP

The IRLM drove the DBMS STATUS exit, indicating a failure condition, and is waiting for that DBMS to respond with a PURGE, indicating cleanup is complete.

SFAIL The IRLM to which the DBMS is identified was disconnected from the data sharing group. The modify locks for all the DBMS subsystems on that IRLM were retained by IRLM. All DBMSs that are identified to IRLMs disconnected from a data sharing group are listed as SFAIL by the surviving IRLMs.

rtlks

The number of retained locks held by a subsystem that failed or was running on an IRLM that failed. In most cases, retained locks are purged when a DBMS reidentifies to IRLM; therefore, the number is zero for active DBMSs. However, it is possible for a DBMS to hold both active and retained locks if it is recovering from a previous failure.

id

The ID of the IRLM to which the DBMS is identified.

iname

The name of the IRLM to which the DBMS is identified.

If no DBMSs are identified to any IRLM or to the IRLM specified, or the IRLM specified is not known, the line beginning with *ssname* is replaced with NO INFORMATION AVAILABLE.

ilevl

The IRLM function level requested by the DBMS at IDENTIFY.

If the IRLM to which the DBMS was IDENTIFIED is no longer connected to the data sharing group, then the value displayed for IRLM_LEVL will be zero. The value displayed for any DBMS is determined by the APAR or PTF level applied to that DBMS.

System Action: Processing continues normally.

DXR103I *irlmx* STATUS IRLMS PARTICIPATING IN DATA SHARING GROUP FUNCTION LEVEL *glv*

:

IRLM-NAME	IRLMID	STATUS	LEVEL	SERVICE	MIN_LEVEL	MIN_SERVICE
<i>iname</i>	<i>id</i>	<i>zzz</i>	<i>lv</i>	<i>s</i>	<i>mlv</i>	<i>ms</i>

Explanation: This message displays the active IRLMs in response to the following command:

F irImproc,STATUS,ALLI

A list of IRLMs in the group that are actively data sharing is displayed. If not data sharing, the single IRLM is displayed.

glv The IRLM function level in use by all the IRLM(s) in the data sharing group.

iname A 4-character IRLM name.

id The ID of the IRLM.

zzz One of the following:

UP The IRLM is active.

DOWN The IRLM failed.

lv The current IRLM function level.

s The IRLM service or release that corresponds to the function level given in *s*

mlv The minimum IRLM function level this IRLM can coexist with.

ms The IRLM service or release that corresponds to the function level given in *mlv*

System Action: Processing continues normally.

DXR104I *irlmx* MAINTENANCE LEVELS

Explanation: This display is produced by the MODIFY *irImproc,STATUS,MAINT* command. Maintenance levels of all IRLM load modules except DXRRL183, DXRRLFTB, DXRRLM50, and DXRRL186 are displayed to the console in two column format, showing the most recent APAR level and the compile date applied to each csect.

System Action: IRLM processing continues normally.

Operator Response: Review the maintenance level for any suspected module error or as requested by the IBM Support Center.

System Programmer Response: none

DXR105E *irlmx* STOP COMMAND REJECTED. AN IDENTIFIED SUBSYSTEM IS STILL ACTIVE

Explanation: A STOP *irImproc* command was entered, but the IRLM still has active DBMSs identified.

System Action: The command is not processed, but

IRLM processing continues normally.

Operator Response: Reenter the STOP command after all active DBMSs have terminated, or terminate the IRLM abnormally with the F irImproc,ABEND command.

DXR106E *irlmx* **INVALID MODIFY COMMAND
PARAMETER SPECIFIED**

Explanation: A MODIFY command specified the procedure name of this IRLM, but the command either contained parameter values not supported by the IRLM or did not contain a required parameter.

System Action: The command is not processed, but IRLM processing continues normally.

Operator Response: Reenter the MODIFY command with the correct parameters.

DXR107E *irlmx* **STORAGE NOT AVAILABLE TO
PROCESS THIS COMMAND**

Explanation: The IRLM cannot obtain sufficient internal working storage to process the command.

System Action: The command is not processed, but IRLM processing continues normally.

Operator Response: Inform the system programmer. Reenter the command after storage is available to process the command.

System Programmer Response: Increase the region size specified on the IRLM startup procedure.

DXR108I *irlmx* **PURGE, nnnnnnnn COMMAND
FAILED yyyyyyyy**

Explanation: A PURGE command specified either a name of an active DBMS or a name that is not known to this IRLM.

nnnnnnnn

The *dbmsname* specified on the PURGE,dbmsname command.

yyyyyyyy

The reason the purge command failed:

PURGE IN PROGRESS:

Either another PURGE command is being processed, or the IRLM is in the process of cleaning up from the disconnection of another group member.

NAME NOT FOUND OR ACTIVE:

The DBMS name specified cannot be found, or that DBMS is identified as an active subsystem and cannot be purged by the PURGE command.

System Action: The command failed, but IRLM processing continues normally.

Operator Response: Reenter the PURGE command with the correct parameters.

DXR109I *irlmx* **PURGE COMMAND COMPLETED
FOR nnnnnnnn**

Explanation: A PURGE command completed successfully.

nnnnnnnn

The DBMS name specified on the PURGE,dbmsname. command

System Action: Processing continues normally.

DXR110I *irlmx* **STOP COMMAND ACCEPTED**

Explanation: The IRLM accepted the STOP command or IRLM has initiated the AUTOSTOP function and is beginning the normal shutdown process.

System Action: The IRLM is performing shutdown processing. The IRLM subtasks are being quiesced and detached. If the IRLM is actively part of a data sharing group, then the other IRLMs are informed when this IRLM leaves the data sharing group. If IRLM was autostarted by the DB2 IRLM will issue this message when the DB2 terminates.

DXR116E *irlmx* **INITIALIZATION FAILED, CODE=xx
DETECTED BY zzzzzzzz**

Explanation: The IRLM was unable to complete initialization because of error code xx. The name of the module that detected the failure is zzzzzzzz.

The values of xx are:

- 01** Unable to allocate global storage.
- 02** Unable to allocate local storage.
- 03** The IRLMID was missing or invalid. IRLMID must be specified as a 1 to 3-digit number from 0 through 255. The IRLMID must be unique among all IRLMs belonging to the same data sharing group (having the same GROUP parameter). This code can also be returned if you are using a printable character (such as 'D') for the IRLM identifier. Because of the way MVS interprets quotes, a printable character must be surrounded by enough single quotes for IRLM to determine that this is a printable character. For the IRLMID parameter in the startup procedure, there must be seven quotes on either side of the character (''''''D'''''). If you are specifying the IRLMID on the EXEC statement, there must be three quotes on either side (''D'').
- 05** The DEADLOK parameter was missing or invalid. This parameter must be specified as *iiii,kkkk*, where *iiii* and *kkkk* are 1 to 4-digit numbers from 1 through 9999.

DXR116E

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| <p>06 An MVS subsystem SSCVT containing the name specified by the IRLMNM parameter does not exist. IRLM was not properly registered with MVS to use the subsystem interface.</p> <p>07 Error in module zzzzzzzz initialization.</p> <p>08 Error loading IRLM modules.</p> <p>09 IRLM was already started.</p> <p>10 The SCOPE parameter was missing or invalid. Either LOCAL, GLOBAL, or NODISCON must be specified.</p> <p>11 The MAXCSA parameter was missing or invalid. This parameter must be specified with value range from 0 to 999, or blank. The value is ignored, but the parameter must be specified for compatibility.</p> <p>12 The IRLMNM parameter was missing or a length greater than 4 was specified.</p> <p>13 The SETDIE for the initial deadlock time interval failed.</p> <p>14 The PC parameter was specified incorrectly. The value must be YES, NO, or blank. The value is ignored, but the parameter must be specified for compatibility.</p> <p>15 The operating system on which IRLM is attempting to start is not MVS/XA or higher.</p> <p>16 The MAXUSRS parameter was invalid.</p> <p>17 Invalid group name. A 1 to 8 character group name must be specified if running SCOPE=GLOBAL.</p> <p>18 Invalid lock table name. The lock table name must be the same as the one defined in the MVS locking policy, or it must not be specified.</p> <p>19 The CTRACE DELETE HEAD-level trace failed.</p> <p>20 The CTRACE DEFINE HEAD-level trace failed.</p> <p>21 The CTRACE DEFINE SUB trace failed.</p> <p>22 More than one displayable character was specified for the IRLMID parameter.</p> <p>23 An invalid value for the TRACE parameter is specified. The only valid values are YES and NO.</p> <p>24 The value specified for LTE= is not in the valid range of 0-1024 or is not an even power of two. (i.e. 2,4,8,16...)</p> | <p>01 Make global storage available to IRLM. Analyze the dump for more information.</p> <p>02 Increase the region size on the IRLM startup procedure. Analyze the dump for more information.</p> <p>03 Correct the IRLMID parameter on the IRLM startup procedure.</p> <p>05 Correct the DEADLOK parameter on the IRLM startup procedure.</p> <p>06 Verify that the IRLM startup procedure specifies the desired IRLM name. If IRLMNM specifies the desired name, verify that an MVS subsystem with that name is defined.</p> <p>07 Analyze the dump to determine the problem.</p> <p>08 Analyze the dump to determine the problem.</p> <p>09 Verify that the IRLM startup procedure specifies the desired IRLM name.</p> <p>10 Correct the SCOPE parameter on the IRLM startup procedure.</p> <p>11 Correct the MAXCSA parameter on the IRLM startup procedure.</p> <p>12 Correct the IRLMNM parameter on the IRLM startup procedure.</p> <p>13 Analyze the dump to determine the problem.</p> <p>14 Correct the IRLM PC parameter.</p> <p>15 IRLM must be run on an MVS/XA or higher system.</p> <p>16 Correct the MAXUSRS parameter.</p> <p>17 Correct the XCF group name parameter in the IRLM startup procedure.</p> <p>18 Correct the lock table name parameter in the IRLM startup procedure.</p> <p>19 Analyze the dump to see what is wrong with CTRACE.</p> <p>20 Analyze the dump to see what is wrong with CTRACE.</p> <p>21 Analyze the dump to see what is wrong with CTRACE.</p> <p>22 Correct the value for the IRLMID parameter.</p> <p>23 Correct the value for the TRACE parameter.</p> <p>24 Correct the value for the LTE parameter and re-issue the START command.</p> |
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System Action: IRLM user abend 2018 is issued.

Operator Response: Notify the system programmer.

System Programmer Response: Take the following action based on the code:

For codes 1, 2, 6, 7, 8, 13, 18, 19, and 20, an SDUMP is also taken. The IRLM discontinued its initialization processing.

DXR117I *irlmx* **INITIALIZATION COMPLETE**

Explanation: The IRLM successfully completed initialization and is available for use. If SCOPE=GLOBAL or NODISCON is specified, message DXR132I is issued when the IRLM connects to the global environment and is capable of inter-system data sharing.

System Action: The IRLM is processing normally.

DXR121I *irlmx* **END-OF-TASK CLEANUP SUCCESSFUL — HI-CSA xxxK or xxxM**

Explanation: The IRLM end-of-task routine released all of the MVS common storage that was in use by the terminating IRLM except for storage required for EOT/EOM processing. The HI-CSA is the highest amount of CSA + ECSA allocated to the IRLM during this initialization. The value for HI-CSA is displayed as either xxxK for kilobytes or xxxM for megabytes.

System Action: The IRLM terminated processing.

Operator Response: None is required. Enter the S irImproc command to restart the IRLM.

DXR122E *irlmx* **ABEND UNDER IRLM TCB/SRB IN MODULE xxxxxxxx ABEND CODE zzzz**

Explanation: The IRLM experienced an unrecoverable programming error while processing under an IRLM execution unit. Global sharing with the IRLM issuing the message is inhibited.

xxxxxxx

The name of the module that detected the failure.

zzzz The abend code associated with the failure.

System Action: The IRLM is performing abnormal termination processing. An MVS SYS1.LOGREC entry and an SDUMP were requested. An abend is issued to terminate the IRLM job-step task.

Operator Response: Notify the system programmer. Ensure that the SYS1.DUMPxx data set containing the SDUMP is not overwritten before the dump is analyzed.

System Programmer Response: Use the IPCS service aid to analyze the dump to determine the cause of the failure.

DXR123E *irlmx* **ABEND UNDER DBMS TCB/SRB IN MODULE xxxxxxxx ABEND CODE=zzzz ERROR ID=wwwww**

Explanation: The IRLM experienced an unrecoverable programming error while processing a request executing under a DBMS execution unit. Global sharing with the IRLM issuing the message is inhibited. An MVS SYS1.LOGREC entry and an SDUMP were requested.

xxxxxxx

The name of the module that detected the failure

zzzz The abend code associated with the failure

wwwww The error ID or dump sequence number for the associated LOGREC entry.

System Action: The IRLM is performing abnormal termination processing.

Operator Response: Notify the system programmer. Ensure the SYS1.DUMPxx data set containing the SDUMP is not overwritten before the dump is analyzed. Follow IRLM restart procedures.

System Programmer Response: Use the IPCS service aid to analyze the dump to determine the cause of the failure.

DXR124E *irlmx* **ABENDED VIA MODIFY COMMAND**

Explanation: The IRLM terminated as a result of receiving an F irImproc,ABEND command. Global sharing with the IRLM issuing the message is inhibited. An MVS SYS1.LOGREC entry was requested. If the NODUMP parameter was omitted from the MODIFY command, an SDUMP was requested. If the NODUMP option is included & the command is issued twice or there is no DBMS identified to the IRLM, a dump is taken and this message is also issued.

System Action: The IRLM is performing abnormal termination processing.

Operator Response: If an SDUMP was taken, ensure that the SYS1.DUMPxx data set containing the SDUMP is not overwritten before the dump is analyzed. Notify the system programmer.

System Programmer Response: Use the IPCS service aid to analyze the dump to determine the cause of the failure.

DXR131I *irlmx* **OUT OF xxxx STORAGE DETECTED DURING DEADLOCK. DEADLOCK PROCESS DELAYED.**

Explanation: IRLM detected an out-of-storage condition during deadlock detection of resolution processing. Rather than abending the IRLM, the deadlock process for this deadlock detection interval was ended before completely detecting or resolving deadlocks. If this condition is permitted to persist, undetected deadlocks might occur.

xxxx The type of storage IRLM was attempting to get when the out-of-storage condition was detected. It is either ECSA for extended CSA, or PRIVATE for IRLM private storage.

System Action: The IRLM cleans up deadlock data structures before completing deadlock detection or

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resolution. Deadlock detection or resolution is attempted in one local deadlock cycle as specified on the IRLM startup procedure parameter.

Operator Response: Stop and restart the IRLM specifying a larger region size on the IRLM startup procedure. IRLM need not be stopped immediately and can remain up indefinitely if the volume of requests to the IRLM is reduced by limiting DBMS activity.

DXR132I *irlmx* **SUCCESSFULLY JOINED THE DATA SHARING GROUP WITH *yyyy*M LOCK TABLE ENTRIES AND *nnnnnnnn* RECORD LIST ENTRIES.**

Explanation: The IRLM successfully connected to the data sharing group. This includes a successful join to the XCF group and a successful connection to the lock structure. (XCF is the cross-system coupling facility of MVS.) The IRLM can now participate in inter-system data sharing.

The value *yyyy* represents the number of Lock Table Entries in units of 1048576 and *nnnnnnnn* represents the number of Record List Entries available in the Coupling Facility. If the number of Lock Table Entries is less than 1048576, *yyyy* will be zero. The first IRLM to CONNECT to the group causing structure allocation dictates these values for the group.

System Action: The IRLM continues operation.

DXR133I *irlmx* **TIMEOUT DURING GLOBAL INITIALIZATION WAITING FOR *nnnnnnnn***

Explanation: A timeout occurred while the IRLM was attempting global initialization. This problem usually occurs because incorrect lock structure or XCF group names were specified on the LOCKTAB and IRLMGRP parameters. (XCF is the cross-system coupling facility component of MVS.) However, anything that delays global initialization for at least 30 seconds causes this message to be issued. The value for 'nnnnnnn' may be either the irlmnm+irlmid values for an existing peer member or 'NOEVENT'.

System Action: IRLM continues to issue this message until one of the following occurs:

- Global initialization completes.
- The system programmer takes some action to abend the IRLM.
- IRLM abends with U2025 after an internal limit of timeout messages is reached.

Operator Response: Notify the system programmer

System Programmer Response: Investigate what is delaying initialization based on the value for nnnnnnn. If this is the name of a peer irlm, then that member is not sending the required XCF messages to the new member joining. This may be due to XCF messaging problems, processing problems such as DXR167E, or

lack of XCF EVENTS. If the new joining member had failed prior, make sure that each existing member has issued the msgDXR137I recovery message. If 'nnnnnnn' is NOEVENT, then the problem is most likely restricted to the new joining member, and only a dump of this member and XCFAS is likely to be needed. Check the lock structure and XCF group names to ensure that the names specified for this IRLM match the names used by all group members. You can use XCF commands to display the current members in the XCF group to see if this IRLM joined successfully. If necessary, take dumps to assist in failure analysis. Since this message can be issued because of missing interaction with other members, you may need dumps of peer SYSPLEX IRLM members, along with XCFAS. If 'nnnnnnn' is a peer irlm, then take dumps of that member and the joining member. If you wish to get the new member to successfully join, you must terminate any peer member whose name appears for 'nnnnnnn' before attempting to start the new member.

DXR134E *irlmx* **JOIN XCF GROUP *wwwwwwwww* FAILED FOR GLOBAL INITIALIZATION, RETURN=*xx*, REASON=*yyyy***

Explanation: The IRLM cannot successfully join the XCF group. (XCF is the cross-system coupling facility component of MVS.)

wwwwwwwww

The IRLMGRP name specified on the IRLM startup procedure

System Action: IRLM does not connect to the data sharing group. The identify request for the DBMS attempting to identify is rejected.

Operator Response: Notify the system programmer.

System Programmer Response: Try to determine why the IRLM cannot join. See the IXCJOIN section of *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the return and reason codes. If the reason for the connection failure was corrected, restart the IRLM and reidentify the DBMS to it.

DXR135E *irlmx* **CONNECT TO LOCK TABLE *wwwwwwwww* FAILED FOR GLOBAL INITIALIZATION, RETURN=*xx*, REASON=*yyyy***

Explanation: The IRLM cannot successfully connect to the lock table.

wwwwwwwww

The lock table name passed at identify time or the LOCKTAB name specified on the IRLM startup procedure

System Action: IRLM does not connect to the data sharing group. The identify request for the DBMS attempting to identify is rejected.

Operator Response: Notify the system programmer.

System Programmer Response: Try to determine why the IRLM cannot connect. See the IXLCONN section of *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the return and reason codes. If the reason for the connection failure was corrected, restart the IRLM and reidentify the DBMS to it.

DXR136I *irlmx* HAS DISCONNECTED FROM THE DATA SHARING GROUP

Explanation: The IRLM left the data sharing group by disconnecting from both the XCF group and the lock structure. (XCF is the cross-system coupling facility component of MVS.) IRLM takes this action when all identified DBMSs have issued a QUIT request to the IRLM to terminate their active data sharing activity.

This IRLM message may also be issued by a new member that is attempting to JOIN the sysplex group while a lock structure rebuild is occurring. In this case, the disconnect is temporary, and the IRLM should connect to the group when the rebuild is completed. If it does not, a dump should be taken, and the IRLM should be terminated.

System Action: This IRLM disconnected from the data sharing group.

DXR137I *irlmy* GROUP STATUS CHANGED. *irlmy* HAS BEEN DISCONNECTED FROM THE DATA SHARING GROUP

Explanation: IRLM *irlmy* lost connectivity to the data sharing group.

irlmy The ID of the disconnected IRLM as explained in Part 5, "IRLM messages and codes," on page 1307.

All surviving IRLMs issue this message. The disconnected IRLM might issue the DXR136I message.

System Action: IRLM *irlmy* was disconnected from the data sharing group.

Operator Response: None is required on this MVS system. See the DXR136I message for the proper operator response on the disconnected system.

DXR138E *irlmx* QUERY STRUCTURE FOR LOCK TABLE *wwwwwwwww* FAILED FOR GLOBAL INITIALIZATION, RETURN=xx, REASON=yyyy

Explanation: This message is issued when IRLM gets a nonzero return code from a QUERY to XCF for the lock structure size.

wwwwwwwww

The lock table name passed at identify time or the LOCKTAB name specified on the IRLM startup procedure

IRLM is unable to connect to the data sharing group if it does not have a valid structure size.

System Action: IRLM does not connect to the data sharing group. The identify request for the DBMS attempting to identify is rejected.

Operator Response: Try to determine from the return and reason codes specified in the message what the problem is with XCF. See the IXCQUERY section of *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the return and reason codes. Restart the DBMS when the problem is fixed.

System Programmer Response: If the operator is unable to find the problem, determine why the XCF QUERY request failed.

DXR139E *irlmx* zzzzzzzz REQUEST FAILED, RETURN=xx, REASON=yyyy

Explanation: An IRLM request to MVS failed with an unexpected return and reason code. The request type is zzzzzzzz.

System Action: IRLM terminates with abend U2025.

Operator Response: Notify the system programmer

System Programmer Response: Use the request type, reason and return codes to find out what caused the failure. See request type 'zzzzzzzz' of *MVS/ESA Programming: Sysplex Services Reference* for an explanation of the return and reason codes. Save the IRLM dump for analysis by IBM service.

DXR140E *irlmx* IRLMID=zzz IS NOT UNIQUE FOR THE DATA SHARING GROUP IT ATTEMPTED TO JOIN

Explanation: An IRLM attempted to join a data sharing group, but IRLMID zzz that was specified in the IRLM startup procedure was already in use by another IRLM in the group.

System Action: IRLM terminates with abend U2025.

Operator Response: Notify the system programmer.

System Programmer Response: Change the IRLMID in the startup procedure to a number from 1 through 255 that is not already in use by another IRLM in the data sharing group.

DXR141I *irlmx* THE LOCK TABLE *wwwwwwwww* WAS ALLOCATED IN A zzzzzzzz FACILITY

Explanation: The MVS coupling facility containing the lock table being used by IRLM is executing in zzzzzzzz state.

zzzzzzzz

Volatile or Nonvolatile

The volatile state indicates that there is no battery backup for the facility if a power failure occurs.

wwwwwwwww

The lock table name passed at identify time or the LOCKTAB name specified on the IRLM startup procedure.

System Action: Data sharing continues normally.

Operator Response: Notify the system programmer.

System Programmer Response: Take some action to move to a nonvolatile structure if that is desired for better availability.

DXR142E *irlmx* **THE LOCK STRUCTURE**
wwwwwwwww **IS zzz% IN USE**

Explanation: This message shows what percent of the available capacity of the lock structure is being used by the group and can indicate that some action is needed to relieve the storage.

wwwwwwwww

The lock table name currently in use by the IRLM.

zzz One of the following values: 80, 90, 100.

System Action: This message stays on the console until the storage falls below 70% or until the operator removes the message. Data sharing continues, possibly with restrictions, depending on how full the lock structure is.

- At 80% full, data sharing continues with no restrictions, but storage is reaching a critical threshold.
- At 90% full, data sharing continues with restrictions. Only 'must-complete' type of requests that require lock structure storage are processed. All others that require lock structure storage are denied with an 'out of lock structure storage' reason code.
- At 100% full, data sharing continues with more restrictions. Any request that requires lock structure storage is denied with an 'out of lock structure storage' reason code.

Operator Response: Notify the system programmer if there is a concern about running out of space in the lock structure.

System Programmer Response: Take some action to increase the size of the lock structure if more space is needed. Force to completion update-type transactions to free modify locks which will in turn free some lock structure storage.

See *DB2 Data Sharing: Planning and Administration* for actions you can take in a DB2 environment to alleviate the storage shortage in the lock structure.

DXR143I *irlmx* **REBUILDING LOCK STRUCTURE**
BECAUSE IT HAS FAILED OR AN IRLM
LOST CONNECTION TO IT

Explanation: The lock structure failed or one or more IRLMs lost connections to it. The IRLM attempts to rebuild all the current information into the new lock structure without modifying any of the attributes.

System Action: Data sharing is stopped while rebuild is in progress. After rebuild completes successfully, data sharing continues normally. If rebuild does not succeed, IRLM disconnects from the data sharing group.

Operator Response: Notify the system programmer to repair the failed structure or connections to it.

System Programmer Response: Determine the reason for the structure or connection failure and take actions to recover the failed structure.

DXR144I *irlmx* **REBUILDING LOCK STRUCTURE**
BECAUSE ALL CONNECTIONS TO IT
ARE IN USE

Explanation: The last available connection to the lock structure was allocated. IRLM attempts to rebuild into another structure and modify the lock structure attributes to allow more connections.

System Action: Data sharing is stopped while rebuild is in progress. After rebuild completes successfully, data sharing continues normally with more connections available for the group. If rebuild does not succeed, data sharing continues but new members are not able to join the group.

Operator Response: Determine whether the group needs to be able to handle more members, and if so, change the MAXUSRS parameter on the IRLMPROC.

System Programmer Response: Determine the reason why rebuild failed. Take actions to make a bigger structure available to handle the bigger group.

DXR145I *irlmx* **REBUILDING LOCK STRUCTURE**
AT OPERATORS REQUEST

Explanation: The operator started rebuild with an MVS SETXCF command. IRLM attempts to rebuild into another structure without modifying any of the lock structure attributes.

System Action: Data sharing is stopped while rebuild is in progress. After rebuild completes successfully, data sharing continues normally. If rebuild failed, data sharing still continues normally.

Operator Response: Ensure that rebuild completes successfully. Notify the system programmer if any problem occurs during rebuild. If rebuild failed, contact the system programmer to determine why.

System Programmer Response: Determine the

reason why rebuild failed. Take actions to make the desired structure available.

DXR146I *irlmx* REBUILD OF THE LOCK STRUCTURE COMPLETED SUCCESSFULLY WITH *yyyyM* HASH AND *nnnnnnnn* RECORD LIST ENTRIES.

Explanation: The lock structure was successfully moved to another coupling facility structure. The value *yyyy* represents the number of Lock Table Entries in units of 1048576 and *nnnnnnnn* represents the number of Record List Entries available in the Coupling Facility. If the number of Lock Table Entries is less than 1048576, *yyyy* will be zero. The first IRLM to CONNECT to the group causing structure allocation dictates these values for the group.

System Action: Data sharing continues normally.

DXR147I *irlmx* REBUILD OF THE LOCK STRUCTURE WAS STOPPED

Explanation: The lock structure could not be moved to another coupling facility structure. Rebuild process was terminated.

System Action: Data sharing continues normally if the old lock structure is still available. If the lock structure failed, IRLM disconnects from the group.

Operator Response: Contact the system programmer to determine why rebuild was stopped.

System Programmer Response: Determine why rebuild was stopped. Take actions to make a suitable coupling facility structure available for rebuild.

DXR148I *irlmx* REBUILD OF LOCK STRUCTURE WAS STOPPED BY THE OPERATOR

Explanation: The operator issued a console command to stop the rebuild.

System Action: The REBUILD is stopped and IRLM will either DISCONNECT from the group or continue to process under the old structure, depending on the reason rebuild was initiated.

Operator Response: If IRLM DISCONNECT from the group, follow local recovery procedures.

System Programmer Response: Determine why the rebuild was stopped and take appropriate action to restore rebuild capability.

DXR149I *irlmx* REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO FAILURE OF A REQUIRED IRLM IN THE GROUP

Explanation: Rebuild was stopped because one of the IRLMs involved in the rebuild has failed.

System Action: The REBUILD is stopped and IRLM will either DISCONNECT from the group or continue to process under the old structure, depending on the reason rebuild was initiated.

Operator Response: If IRLM DISCONNECT from the group, follow local recovery procedures.

System Programmer Response: Determine why the IRLM failed and take appropriate action to restore rebuild capability.

DXR150I *irlmx* REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO FAILURE OF THE NEW STRUCTURE

Explanation: Rebuild was stopped because the NEW STRUCTURE failed.

Operator Response: If IRLM DISCONNECT from the group, follow local recovery procedures.

System Action: The REBUILD is stopped and IRLM will either DISCONNECT from the group or continue to process under the old structure, depending on the reason rebuild was initiated.

System Programmer Response: Determine what failure occurred on the new structure and take appropriate action to restore rebuild capability.

DXR151I *irlmx* REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO FAILURE ON QUERY OR CONNECT OF THE NEW STRUCTURE

Explanation: Rebuild was stopped because IRLM received a bad return code on the IXCQUERY or IXLCONN request to XCF for the new structure.

System Action: The REBUILD is stopped and IRLM will either DISCONNECT from the group or continue to process under the old structure, depending on the reason rebuild was initiated.

Operator Response: If IRLM DISCONNECT from the group, follow local recovery procedures.

System Programmer Response: Determine why the bad return code was received and take appropriate action to restore rebuild capability.

DXR152I *irlmx* REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO AN OUT OF SPACE CONDITION ON THE NEW STRUCTURE

Explanation: Rebuild was stopped because the new structure contains insufficient space to hold all of the data from the old structure or from the RESTART.

System Action: The REBUILD is stopped and IRLM will either DISCONNECT from the group or continue to process under the old structure, depending on the reason rebuild was initiated.

Operator Response: If IRLM DISCONNECT from the group, follow local recovery procedures.

System Programmer Response: Determine why the new structure was not large enough to contain all of the data from the old structure or restart. Take appropriate action to restore rebuild capability.

DXR153I *irlmx* REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO AN UNEXPECTED RETURN CODE FROM XES SERVICES

Explanation: Rebuild was stopped because IRLM received a bad return code on a request to SLM.

System Action: The REBUILD is stopped and IRLM will either DISCONNECT from the group or continue to process under the old structure, depending on the reason rebuild was initiated.

Operator Response: If IRLM DISCONNECT from the group, follow local recovery procedures.

System Programmer Response: Determine why the return code was received from SLM and take appropriate action to restore rebuild capability.

DXR154I *irlmx* REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO SUCCESSFUL COMPLETION OF GROUP FUNCTION LEVEL CHANGE

Explanation: IRLM started a REBUILD to establish a new group function level because a new member with a different service level is joining the group. The IRLM rebuild process then checks to see if a complete rebuild is needed to complete the group function level change. This message is issued when a complete rebuild is not needed for a successful group function level change.

System Action: The REBUILD is stopped and the new IRLM member joins the group.

DXR155I *irlmx* REBUILD OF LOCK STRUCTURE WAS STOPPED DUE TO UNSUCCESSFUL COMPLETION OF GROUP FUNCTION LEVEL CHANGE

Explanation: IRLM started a REBUILD to establish a new group function level because a new member with a different service level is joining the group. The IRLM rebuild process then checks to see if a complete rebuild is needed to complete the group function level change. This message is issued from the existing members when a joining member can not coexist with one or more of the existing members of the group.

System Action: The REBUILD is stopped and the new IRLM member does not join the group. The DBMS that was identifying itself to the new IRLM member is notified that the IDENTIFY failed. Message DXR157I is issued by the member that was trying to join the group

or message DXR158I is issued by other members in the joining member's behalf.

System Programmer Response: Compare the service level of the IRLM member that failed to join the group with the service level of the other IRLM members in the group. The pertinent service levels can be found by issuing the IRLM modify command "f irlmproc,status,alli" on all of the IRLMs involved.

DXR156I *irlmx* REBUILDING LOCK STRUCTURE TO CHANGE THE GROUP FUNCTION LEVEL

Explanation: This message is issued when IRLM starts a REBUILD to establish a new group function level when a new member with a different service level is joining the group. Later messages describe further actions IRLM takes during the process of changing the group function level.

System Action: The REBUILD is started. This allows IRLM to process a group function level change.

DXR157I *irlmx* FAILED TO JOIN THE DATA SHARING GROUP BECAUSE IT CANNOT COEXIST WITH AT LEAST ONE OF THE EXISTING MEMBERS

Explanation: The IRLM member, *irlmx*, could not coexist with one or more existing members of the group because of differences in service levels.

System Action: The REBUILD is stopped and the new IRLM member does not join the group. The DBMS that was identifying itself to the new IRLM member is notified that the IDENTIFY failed.

System Programmer Response: Compare the service level of the IRLM member that failed to join the group with the service level of the other IRLM members in the group. The pertinent service levels can be found by issuing the MVS modify command "f irlmproc,status,alli" on all the IRLMs involved.

DXR158I *irlmx* CANNOT COEXIST WITH AT LEAST ONE EXISTING MEMBER. ALL DBMS IDENTIFY REQUESTS TO THAT IRLM WILL BE DENIED.

Explanation: The IRLM member, *irlmx*, could not coexist with one or more existing members of the group because it does not have the service level that includes coexistence support.

System Action: The REBUILD is stopped and the new IRLM member is not allowed to join the group. The DBMS that was identifying itself to the new IRLM member is notified that the IDENTIFY failed.

System Programmer Response: Compare the service level of the IRLM member that failed to join the group with the service level of the other IRLM members in the group. The pertinent service levels can be found

by issuing the MVS modify command "f irlmproc,status,alli" on all the IRLMs involved.

DXR162I *irlmx* **CYCLE NUMBER nnnnnnnn PROCESSED FOR TIMEOUT**

Explanation: A TIMEOUT candidate has been detected on at least one IRLM. If an incompatible blocker was found, the IMS TIMEOUT EXIT has been driven to present WAITER/BLOCKER information.

System Action: IRLM processing continues normally. DXR162I is issued only by the Global Deadlock Manager (GDM), the IRLM with the lowest IRLMID in the IRLMPROC. The message will be issued once per minute if there is at least one candidate waiter found during the global deadlock cycle. If a cycle occurs and no timeout waiter is found during that time, the flag is reset and DXR162I will be issued the next time a candidate waiter is present.

Operator Response: Based on local operational guidelines, use RMF™ to generate a report from the 79.15 (4F 0F) SMF records with cycle number nnnnnnnn. If the message is issued and no 79.15 records are found, one of these errors is likely to have occurred:

1. SMF has not been enabled for the 79.15 to be cut to the MAN* data set. Check the *.IEFU84 member for MODNAME(ERBDSSMF) on each system.
2. SMF has not presented the 79.15 to the RMF data space due to a set-up error in the data space. Make sure the dataspace has been defined. Enable the 79.15 to the RMF with:
RMF,SMFBUF(,RECTYPE(79))
3. The 79.15 record with cycle number nnnnnnnn was delayed in writing. Request the same cycle number again.
4. IRLM did not find an incompatible blocker

If the waiter cannot be identified and you wish to consult IBM SERVICE, start the IRLM *INTERNAL* CTRACE for subtype XCF on each member, then collect MVS CONSOLE dumps of the IRLM(s) and their IMS DLI and any suspicious dependent regions. If this is in a SYSPLEX environment, you must take and save dumps of all IRLMs with XESDATA and associated DBMS regions. Once the dumps are captured, you may turn off XCF tracing. If it appears to be an invalid WAIT condition and this is a SYSPLEX environment, issue a SETXCF REBUILD to attempt recovery. If this fails to resume the waiter, follow local operation guidelines.

System Programmer Response: Determine if the wait is caused by application logic, operator error, or other factors. The most common cause is incorrect dispatch priority. If unable to determine the cause of the wait, contact IBM support with the documentation above.

DXR164E *irlmx* **CANNOT RECOVER FOR A FAILED MEMBER DUE TO LOSS OF CONNECTIVITY TO THE LOCK STRUCTURE**

Explanation: IRLM detects loss of connectivity to the lock structure during member recovery or global initialization. IRLM is longer able to support data sharing without the retained lock information.

System Action: Disconnect from the data sharing group.

User Response: Notify the system programmer to correct the problem with the coupling facility.

Problem Determination: See IXC messages to determine the root cause of the failure and the appropriate corrective action.

DXR165I *irlmx* **TERMINATED VIA IRLM MODIFY COMMAND**

Explanation: An operator issued a MODIFY IRLM,ABEND command.

System Action: IRLM shuts down.

DXR166E *irlmx* **CONNECT TO LOCK STRUCTURE FAILED FOR GLOBAL INITIALIZATION**

Explanation: IRLM detects loss of connectivity to the lock structure during member recovery or global initialization. IRLM is longer able to support data sharing without the retained lock information.

System Action: Disconnect from the data sharing group.

User Response: Notify the system programmer to correct the problem with the coupling facility.

Problem Determination: See IXC messages to determine the root cause of the failure and the appropriate corrective action.

DXR167E *irlmx* **IRLM HAS DETECTED A DELAY IN COMPLETION OF vvvvvvvv PROCESS.**

Explanation: IRLM has detected a delay in some process which may prevent other DBM or IRLM processes from running. The value for vvvvvvvv may be any of the following:

ASIDxxxx

ASIDxxxx is issued when IRLM is unable to process main latch activity for some period and finds a DBM agent which does not appear to be moving. May cause all symptoms below.

DPRIORITY

DPRIORITY is issued when IRLM is unable to get its main latch for some period, but the Health routine cannot identify any delayed request. May cause all 's1' symptoms below.

DXR167E

MAIN_SRB

MAIN_SRB is issued in sysplex when irlm detects that some main latch process has been active for an extended period. May cause all 's1' symptoms below.

MAXCYCLE

MAXCYCLE is issued when IRLM is unable to process all of the waiters during a deadlock cycle because the number of waiting relationships created would require excessive SRB execution time. This can result in all S2 symptoms below.

NOTIFY_G

NOTIFY_G is issued in a sysplex when irlm detects that a peer notify has not returned for some period. May cause all 's2' symptoms below.

NOTIFY_L

NOTIFY_L is issued when IRLM finds a NOTIFY Exit drive to its DBM subsystem has not returned for some period. May cause all 's2' symptoms below.

System Action: The IRLM continues operation. This message stays on the console until that delay is no longer detected. When all DXR167E delays are corrected, irlm issues DXR168I. The delayed completion may prevent other IRLM or DBM processes, some of which are listed below, from running. These delayed processes may cause any of the following symptoms:

- A new DBMS can't identify.
- New members might not be able to join. They will time out during global initialization and eventually terminate abnormally.
- A terminated DBMS is not resumed.
- Failed members might not get properly partitioned from the group because recovery actions for them cannot run.
- Transactions do not deadlock or time out
- REBUILD of the IRLM group will not run.
- (s2) A transaction hangs.
- (s2) Other processes contending with the hung process might also hang, potentially causing a chain reaction.
- (s2) The whole group might hang.

Operator Response: Notify the system programmer.

System Programmer Response: This delayed process may not cause a noticeable problem to the users.

Note: If no problems are observed or reported, then monitor the system for the completion of the delayed process.

If no problems are observed or reported, then just monitor the system for the completion of the delayed process. If problems with the system are observed, then take the following actions based on the variable term in the message. If you plan to pursue the problem with

IBM Service, then ALWAYS capture the appropriate documentation before taking recovery actions.

ASIDxxxx

This is usually the result of low dispatch priority for some task on an over committed CPU. You can identify the task using xxxx, which is the home ASID in HEX of the detected task. IRLM will attempt to boost the task priority so that it gets CPU cycles to complete. The priority will be returned to original when exiting IRLM. If the DXR167E with this ASID remains displayed and DXR168I is not seen, then this task should be terminated to allow IRLM to return to normal processing.

DOC: To pursue any question with IBM Service, take dumps of the DBMs, IRLM, and ASID xxxx before DXR168I is issued. Also include the text of the DXR167E message from the MVS console when opening the problem report.

DRPRIORITY

This is usually the result of having an incorrect dispatch priority set for the IRLM when compared to the rest of the application tasks or DBM address spaces. Determine if this is the case, and correct the dispatching priority order.

DOC: Take dumps of this DBMs and IRLM asids before taking any action.

MAIN_SRB

This is usually caused when there are too many waiters in a sysplex such that the IRLM deadlock SRB must execute for long periods in order to resolve all of the waiting relationships. You can continue to wait for it to complete, terminate the DBM or IRLM with the most WAITers as shown by the modify command, F i r l m p r o c, S T A T U S, or try to terminate WAITING tasks.

DOC: Take dumps of *ALL* DBMs and IRLM asids before taking any action.

MAXCYCLE

This is usually the result of an application problem or a temporary hang that allowed the number of waiters in the sysplex to become excessive (typically in the hundreds). This hang could be the result of an application deadlock occurring and not being broken quickly because global deadlock is running too slow. If the transaction rate is high, a deadlock occurs on key resources and is not detected and broken quickly, it can result in many tasks being suspended and involved in deadlocks. You might wish to consider lowering the first value of the DEADLOK parameter in the irlmproc. You should issue MODIFY i r l m p r o c, S T A T U S on each member and if the

message persists, terminate the IRLM with the largest number of waiters.

DOC: Take dumps of *ALL* DBMs and IRLM asids before taking any action.

NOTIFY_G

This is a problem with the peer DBM or IRLM member which should issue the DXR167E with NOTIFY_L. Terminate the IRLM or DBM which issued the NOTIFY_L message.

DOC: Take dumps of all DBM and IRLM where the DXR167E is issued. If only NOTIFY_G is seen, then take dumps of all DBM and IRLM asids.

NOTIFY_L

This is a problem with *THIS* DBM. If this is a sysplex, then each peer member that sent a NOTIFY to this member should issue NOTIFY_G. Terminate the DBM or IRLM where NOTIFY_L is seen.

DOC: Take dumps of all DBM and IRLM where the DXR167E is issued. If only NOTIFY_G is seen, then take dumps of all DBM and IRLM asids.

DXR168I *irlmx* DELAYED PROCESSES NO LONGER DETECTED.

Explanation: This message appears if all situations reported by previous DXR167E messages have been resolved.

System Action: The IRLM continues operation.

Operator Response: Notify the system programmer.

System Programmer Response: Try to determine what might have caused the temporary problem based on the variable insert in the DXR167E message.

DXR169I *irlmx* THE STORAGE SHORTAGE FOR LOCK STRUCTURE *wwwwwwwww* HAS BEEN RELIEVED.

Explanation: This message indicates that the storage shortage indicated by a previously reported DXR142E message is relieved. The amount of the lock structure in use has dropped below 70%.

wwwwwwwww

The lock table name currently in use by the IRLM.

System Action: IRLM resumes normal data sharing with no restrictions.

DXR170I *irlmx* THE LOCK STRUCTURE *wwwwwwwww* IS *zz%* IN USE

Explanation: This message shows what percent of the available capacity of the lock structure is being used by the group. The values are 50%, 60% and 70%. This message is issued only once at each of the three levels of usage and gives an indication of peak usage during the execution of an IRLM subsystem.

wwwwwwwww

The lock table name currently in use by the IRLM.

zz One of the following values: 50, 60, 70.

System Action: The IRLM continues operation.

Operator Response: Notify the system programmer.

System Programmer Response: This message is a warning that there is a potential to overcommit the storage for the lock structure named in the message. Track the occurrences of this message to determine a growth trend. If a growth pattern is detected, increase the storage size specifications for the lock structure in the coupling facility policy and activate the revised policy.

DXR171I *irlmx xxxxxxxx* ARM REGISTRATION FAILED, MVS ARM RETURN CODE = *yyyyyyyyy*, MVS ARM REASON CODE = *xxxxxxxxx*

Explanation: IRLM encountered an error using the specified MVS automatic restart manager (ARM) function. The *xxxxxxxx* is the IRLM ARM element name. For data sharing environments, it is a concatenation of the IRLM group name, the IRLM subsystem name and the IRLM ID. For non-datasharing environments, it is the IRLM subsystem name and the IRLM ID.

System Action: IRLM continues. However, if IRLM abnormally terminates, the MVS ARM cannot automatically restart IRLM.

System Programmer Response: Refer to *z/OS MVS Programming: Sysplex Services Reference* for the function, return code, and reason code from the IXCARM request.

DXR172I *irlmx xxxxxxxx* ARM READY COMPLETED. MVS ARM RETURN CODE = *yyyyyyyyy*, MVS ARM REASON CODE = *xxxxxxxxx*.

Explanation: IRLM initialization has progressed, enabling the automatic restart manager (ARM) to restart dependent element types such as SYSDB2 or SYSIMS. *xxxxxxxx* is the IRLM ARM element name. For data sharing environments, it is a concatenation of the IRLM group name, the IRLM subsystem name, and the IRLM ID. For non-data sharing environments, it is the IRLM subsystem name and the IRLM ID. If the return and

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reason codes are not zero, IRLM encountered an error using the specified MVS ARM function.

System Action: IRLM continues. However, if the return and reason codes are not zero, and IRLM abnormally terminates, the MVS ARM cannot automatically restart IRLM.

System Programmer Response: Refer to *z/OS MVS Programming: Sysplex Services Reference* for the function, return code, and reason code from the IXCARM request.

DXR173I *irlmx xxxxxxxx* **ARM DEREGISTRATION FAILED. MVS ARM RETURN CODE =**
yyyyyyyyy, **MVS ARM REASON CODE =**
xxxxxxxxx

Explanation: IRLM encountered an error using the specified MVS automatic restart manager (ARM) function. *xxxxxxxx* is the IRLM ARM element name. For data sharing environments, it is a concatenation of the IRLM group name, the IRLM subsystem name, and the IRLM ID. For non-data sharing environments, it is the IRLM subsystem name and the IRLM ID.

System Action: IRLM continues. However, if IRLM terminates normally or abnormally, the MVS ARM automatically restarts IRLM.

System Programmer Response: Refer to *z/OS MVS Programming: Sysplex Services Reference* for the function, return code, and reason code from the IXCARM request.

DXR174E *irlmx xxxxxxxx csect-name* **ARM EVENT EXIT FAILED**

Explanation: IRLM automatic restart manager (ARM) event exit encountered an error while attempting to define the IRLM subsystem to MVS.

System Action: The automatic restart of the IRLM subsystem stops.

System Programmer Response: Refer to *z/OS MVS Programming: Assembler Services Reference, Volumes 1 and 2* for return and reason codes from the IEFSSI request. To start IRLM manually, use the START *irlmproc* command on any system where the IRLM subsystem is defined. If IRLM is not active and AUTO START = *yes* for IRLM defined in DSNZPARM, then DB2 will attempt to start IRLM when DB2 is started.

DXR175E *irlmx* **IRLM IS UNABLE TO OBTAIN STORAGE -** *storage_type*

Explanation: IRLM is attempting to acquire storage from CSA, ECSA, or extended private. However, the storage type is exhausted, or the monitored threshold has been exceeded. The IRLM command *F irlmproc*, STATUS,STOR can be used to display storage values. See the *DB2 Command Reference* for more information.

The value in field *storage_type* specifies the cause of the error:

- CSA means that the system CSA has been exhausted.

This can be caused by:

- too little CSA generated into the system, or an unexpected peak of demand for CSA storage by the jobs and tasks running in the MVS system.

- ECSA means that the system ECSA has been exhausted.

This can be caused by:

- too little ECSA generated into the system, or an unexpected peak of demand for ECSA storage by the jobs and tasks running in the MVS system.

- PVT means that the extended private storage threshold has been reached.

This can be caused by:

- lack of COMMITS
- runaway applications
- IRLM region size too small, or
- a failed subsystem not recovering retained locks

System Action: The IRLM continues operating as best it can. This message stays on the console until IRLM is able to acquire the needed storage. Some DBMS requests might be processed successfully, some might be rejected with out of storage return and reason codes, and some might hang.

Operator Response: Notify the system programmer. Try to reduce the work load on the system or the number of transactions running in the DBMS.

When the out of storage condition is relieved, normal IRLM operation resumes. Because storage is unavailable, the following symptoms might occur:

- transactions might abend with out of storage indications
- message DXR167E might be issued
- transactions might hang
- other processes contending with a hung process will also hang, potentially causing a chain reaction
- the system hangs
- if in a data sharing environment:
 - the whole group might hang
 - new members might not be able to join. They will time out during global initialization and eventually terminate abnormally.
 - failed members might not get properly partitioned from the group because recovery actions for them cannot run.

System Programmer Response: Determine what is preventing IRLM from obtaining storage.

If CSA or ECSA was exhausted, generate more CSA or ECSA into the system or reduce the number of running

tasks that are dependent on CSA or ECSA.

If the condition is from an operational error that can be corrected without shutting down IRLM, correct it as soon as possible.

If PVT is displayed, use the IRLM command `F ir1mproc,STATUS` to determine how many locks are held or if there are retained locks. Also look at the output of the `STATUS,STOR` command to see how much private region storage was available. The IRLM command `F ir1mproc,SET,PVT=` can be used to increase the storage threshold. See the *DB2 Command Reference* for information regarding WARNING notes.

Otherwise, shut down IRLM, correct the problem, and restart IRLM.

DXR176I *irlmx* **IRLM STORAGE SHORTAGE RELIEVED**

Explanation: This message appears if a situation reported in a previous DXR175E message has been resolved.

System Action: The IRLM continues operation.

Operator Response: Notify the system programmer.

System Programmer Response: Try to determine what might have caused the temporary problem as reported in a previous DXR175E message. The most likely reasons is insufficient CSA or ECSA for the combined tasks running in MVS. If possible, correct the problem without shutting down IRLM.

DXR177I *irlmx* **THE VALUE FOR *nnnnnnnn* IS SET TO *xxxx***

Explanation: This message is issued in response to any successful IRLM `MODIFY ir1mproc,SET,cccc` command.

Where current values for *nnnnnnnn* include:

DEADLOCK
LTE
PVT
TIMEOUT
TRACES

System Action:

DEADLOCK

Where *xxxx* is a value between 100 and 5000 and represents the number of milliseconds used for the IRLM deadlock interval. The value displayed will be in even 100 millisecond increments.

If this IRLM is connected to the group, this message appears on each member currently connected as they update their control block during deadlock processing. The DEADLOCK interval frequency is changed to the number of

milliseconds displayed in the message as each IRLM updates its local control blocks. The global deadlock interval is aborted and global deadlock processing reinitialized to synchronize all members.

LTE Where *xxxx* is a value between 0 and 1024 and represents the number of Lock Tash Entries available in the Coupling Facility. The value must either be zero or a power of two with each increment representing 1048576 entries.

If this IRLM is connected to the group, this message appears on each member currently connected as they update their control block during deadlock processing. The value specified with the SET command, does not take affect unless the IRLM is the first to join the group causing structure allocation.

This can be either during normal group startup or during a REBUILD. If the value specified is zero or too large for the IXQUERY policy size returned, then the IRLMPROC `LTE=` value is used. If the IRLMPROC `LTE=` value is blank, zero, or also too large, the number of entries is calculated by irlm to the nearest power of two after dividing the returned size by two.

PVT The value of PVT is set to *xxxx* megabytes.

The system automatically adjusts *xxxx* to a number between 1 and 1800 if the number specified is not in this range. If the new PVT value is smaller than already in use, the command receives a syntax error message, DXR106E. No validation of the value is done to see that the address space contains the storage that is specified.

TIMEOUT

Where *xxxx* is a value between 1 and 3600 seconds. This value must be a multiple of the local deadlock parameter. If the value entered by the user is not an even multiple, the next higher multiple is used. If the value specified is out of range, the maximum or minimum is used. Since serialization is needed to change the internal timeout value, it is done during the next deadlock cycle. The DXR177I message is not issued until the input has been validated and the value changed during a deadlock cycle. The message also displays the name of the DBMS subsystem whose timeout value was changed.

TRACES

Where *xxxx* is a value between 10 and 255. Each trace buffer requires 64KB of ECSA storage. IRLM can use a maximum of 255 and a minimum number of 10 trace buffers for each trace type. The system automatically adjusts *xxxx* to the maximum or minimum allowed if

the value specified is out of range. The value specified does not apply if the EXTERNAL CTRACE write is active. If the number of trace buffers set by the command is less than the current buffer allocation, IRLM frees the oldest buffers until the number allocated equals the number set by the command.

DXR179I *irlmx* TRACE USAGE TRACE BUFFER STORAGE IN USE: nnnnnKB MAXIMUM NUMBER OF TRACE BUFFERS ALLOWED PER TRACE TYPE: nnn TRACE TYPE ACTIVE BUFFERS IN USE CTRACE WRITER

Explanation: This message is issued in response to the following command:

F irlmproc,STATUS,TRACE

The message indicates the maximum number of 64KB buffers that IRLM can use for each of its subcomponent trace types.

TRACE TYPE

The trace types are:

- SLM** Traces interactions with MVS locking component. Applicable only for data sharing
- XIT** Traces asynchronous interactions with the MVS locking component. Applicable only for data sharing
- XCF** Traces interactions with MVS cross-system coupling services. Applicable only for data sharing.
- DBM** Traces interactions with the DBMS identified to this IRLM.
- EXP** Traces exception conditions.
- INT** Traces member and group events outside normal locking activity.

ACTIVE

Whether the trace is active. (You cannot deactivate the EXP and INT traces.)

BUFFERS IN USE

How many 64KB buffers are currently being used by this trace.

CTRACE WRITE

Whether the external CTRACE writer is on.

System Action: Processing continues normally.

Operator Response: Trace buffers can be set via 'modify irlmproc,set,trace=nnn' command. You can activate or deactivate traces by using the TRACE CT command of MVS. You cannot turn off the EXP and INT traces. The XIT, EXP and INT are automatically activated when you start IRLM. All traces are

automatically activated when TRACE=YES is specified on the IRLMPROC.

DXR180I *irlmx* AUTOMATIC RESTART MANAGER IS NOT ENABLED

Explanation: IRLM attempts to utilize the MVS Automatic Restart Manager (ARM) function, but either the system does not have access to an ARM couple data set or the ARM is not set up in the user's environment.

System Action: IRLM continues; however, if IRLM abnormally terminates, the MVS ARM cannot automatically restart IRLM.

Operator Response: Notify the system programmer.

System Programmer Response: Determine why the system does not have access to an automatic restart manager couple data set. If there is no automatic restart manager couple data set defined, determine if the ARM should be set up so that IRLM can take advantage of the MVS ARM function. The purpose of using the ARM is to reduce the time IRLM is down. When IRLM stops abnormally, the MVS ARM will restart it automatically.

DXR181I *irlmx* RUNTIMEO COMMAND DISABLED

Explanation: The IRLMs are doing automatic timeout detection and the command is not needed.

System Action: IRLM processing continues.

DXR182I *irlmx* MODIFY DIAG COMMAND PROCESSED

Explanation: This message is issued in response to an IRLM MODIFY *irlmproc,DIAG* command.

System Action: IRLM processing continues.

Chapter 60. IRLM error return and reason codes

The IRLM error return and reason codes are listed below. Some return and reason codes do not apply to DB2 operation.

The values in the 'return code' column show the request completion status:

- 00** The request completed successfully.
- 04** The request completed successfully, but the state of lock remained unchanged.
- 08** The request completed unsuccessfully because of a system error or condition, not a problem in the request.
- 12** The request completed unsuccessfully because of a logic error in the request.
- 16** The request completed unsuccessfully because of an invalid request specification.
- 20** The request completed unsuccessfully because IRLM resources are not available.

CHANGE request

Return Code	Reason Code Byte 1	Reason Code Byte 2	Description
04	X'80'		Ownership and/or duration was specified, but no locks were changed for one of these reasons: <ul style="list-style-type: none"> • The 'set of locks' specified included no held locks. • All specified locks had a duration value greater than or equal to the specified duration. • PSTATE=TSTATE was specified.
	X'20'		Other holders of the lock exist.
	X'10'		From-duration was specified on a CHANGE ALL request, but the from-duration did not match the held-duration for at least one lock. The mismatched lock is not altered, but other locks might have been altered.
	X'08'		This lock was involved in a deadlock condition, but was not selected as the victim.
	X'02'		The CHANGE STATE request specified a 'tstate' value less restrictive than the current held state of the lock.
		X'04'	At least one other work unit holds the lock with the repeatable read (RR) attribute.
		X'02'	The work unit that submitted this lock request holds the lock with the repeatable read (RR) attribute.

Return Code	Reason Code Byte 1	Reason Code Byte 2	Description	
08	X'80'		A nonrecoverable system error occurred while processing this request.	
	X'40'		The lock is not available in the requested state. MODE=COND was specified.	
	X'20'		The request was rejected because of a deadlock.	
	X'10'		The lock request cannot be granted because of the failure of another DBMS that holds a retained lock in a state incompatible with the requested state of this request. This subcode is also issued when the lock cannot be granted because of an incompatibility with a lock in NOWAIT status. A lock is placed in this status when a QUIT,HELD=WORKUNIT is issued to the IRLM.	
	X'08'		The DBMS is operating in CLEANUP mode because a system failure occurred or because retained locks were deleted without a guarantee that database recovery was done. The DBMS must issue a PURGE request before any global lock request is allowed to wait.	
	X'01'		There is insufficient storage for the IRLM to process the CHANGE request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.	
			X'80'	This request was involved in lock negotiation with other DBMSs and was denied.
			X'10'	No more record list entries are available.
			X'08'	An environmental error occurred in the System Lock Manager(SLM) component of MVS.
			X'04'	At least one other work unit holds the lock with the repeatable read (RR) attribute.
		X'02'	The work unit that submitted this lock request holds the lock with the repeatable read (RR) attribute.	

Return Code	Reason Code Byte 1	Reason Code Byte 2	Description
12	X'80'		An invalid request to change a work unit's Compatibility Class Token was issued. The value in RLPOLDCT did not match what had been specified on a previous lock or change request for this work unit.
	X'40'		The work unit does not hold the lock.
	X'20'		No lock exists for the specified resource hash and name values.
	X'10'		From-duration was specified on a change single request, but the from-duration did not match the held-duration for that lock. The lock is not altered.
	X'08'		The lock is not held in the state specified by 'fstate'.
	X'04'		The resource is not locked by the work unit in the specified class.
	X'02'		A suspended LOCK or CHANGE request exists against the lock. If ownership/duration change of a group of locks was requested, some locks might have changed before this condition was detected.
	X'01'		The target work unit (TWU) already holds a lock or is waiting for a lock on a resource for which this request is attempting to transfer lock ownership. Ownership/duration change of other locks specified by this request might have occurred before this condition was detected.
	16	X'80'	
X'40'			The CLASS is invalid. The value is greater than 31.
X'20'			The count-by-state lock has a valid 'tstate', but the 'fstate' is zero.
X'10'			Both STATE and TWU were specified.
X'08'			STATE was specified, but TOKEN and RNA were omitted.
X'04'			The TOKEN is invalid. It cannot be resolved to a lock held by the specified owning work unit.
X'02'			The resource name length is invalid. The length is less than 2 or greater than 32 bytes.
X'01'			The 'fstate' is invalid for a count-by-state lock. The value is greater than 11.
			X'40'

Return Code	Reason Code Byte 1	Reason Code Byte 2	Description
20	N/A	X'20'	Repeatable reader was specified and no token or resource name was given. IRLM services are not available.

IDENT request

Return Code	Reason Code	Description
	X'80'	Scope=NoDiscon specified on the irlmproc, identify is successful.
04	X'40' X'10'	IRLM is ARM registered Locks are held from the previous IDENT request. Locks held by the identifying DBMS from a previous failure are still in protected status.
08	X'80' X'40'	A nonrecoverable system error occurred while processing this request. An MVS subsystem interface (SSI) error occurred during identification. Ensure that the 4-character IRLM name used by the subsystem to identify to the IRLM was defined as an MVS subsystem, and that the IRLM subsystem with the same name was started.
	X'04'	Identify for recovery (SSTYPE=RECON) was requested, but this IRLM has no retained information about this DBMS.
	X'01'	There is insufficient storage for the IRLM to process the IDENT request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
16	X'80' X'40' X'20' X'10'	The lock table name is invalid. It probably contains blanks. The SSNAME is invalid. An active DBMS in the data sharing group is already using this name. A required exit is missing. If a TIMEOUT exit is specified, TIMEV must be greater than 0. TIMEV is specified in the installation process. A read-only request is not allowed. Locks are retained for this DBMS.
	X'08' X'04'	This request violates the single DB2/IRLM rule. The address of the BACKUP subsystem name pointed to inaccessible storage.
	X'02'	This IRLM does not support the requested function level. A probable cause is the version/release of this IRLM does not support this version/release of DB2. IRLM is back-level.
	X'01'	The IRLM failed to connect to the data sharing group and abended. After fixing the connection error, reconnect the IRLM to the data sharing group.
20	N/A	IRLM services are not available.

LOCK request

Return Code	Reason Code Byte 1	Reason Code Byte 2	Description
04	X'80'		A restart lock successfully reacqured a retained lock.
	X'40'		Modify lock granted but no record list entry created.
	X'20'		Other lock holders exist.
	X'10'		The lock is already held.
	X'08'		This lock was involved in a deadlock, but was not selected as a victim.
	X'04'	X'04'	Another work unit holds the lock private. At least one other work unit holds the lock with the repeatable read (RR) attribute.
		X'02'	The work unit that submitted this lock request holds the lock with the repeatable read (RR) attribute.
08	X'80'		A nonrecoverable system error occurred while processing this request.
	X'40'		The lock is not available in the requested state. MODE=COND was specified.
	X'20'		The request was rejected because of a deadlock or timeout.
	X'10'		The lock request cannot be granted because of the failure of another DBMS that holds a retained lock in a state incompatible with the requested state of this request. This subcode is also issued when the lock cannot be granted because of an incompatibility with a lock in NOWAIT status. A lock is placed in this status when a QUIT,HELD=WORKUNIT is issued to the IRLM.
	X'08'		The DBMS is operating in CLEANUP mode because a system failure occurred or because retained locks were deleted without a guarantee that database recovery was done. The DBMS must issue a PURGE request before any global lock request is allowed to wait. The same reason code is presented if the LOCK request is canceled by a SYNC request.
	X'04'		Another holder holds the restart lock in an incompatible state.
	X'02'		The maximum number of locks that can be held by this work unit was exceeded. The LOCKMAX parameter specifies the maximum.
	X'01'		There is insufficient storage for the IRLM to process the LOCK request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.

Return Code	Reason Code Byte 1	Reason Code Byte 2	Description
		X'80'	This request was involved in lock negotiation with other DBMSs and was denied.
		X'10'	No more record list entries are available.
		X'08'	An environmental error occurred in the System Lock Manager (SLM) component of MVS.
		X'04'	The lock is held by at least one other work unit with the repeatable read (RR) attribute.
		X'02'	The lock is held with the repeatable read (RR) attribute by the work unit that submitted this request.
12	X'80'		An INDOUBT request was specified but either the retained lock for this does not exist, or this is a child resource.
		X'80'	A work unit within this IRLM already holds the P-lock. Only one owning work unit is allowed to hold interest in a P-lock within an IRLM.
	X'40'		An illegal attempt was made to change a Compatibility Class Token (CCT). A previous lock or change request had specified a CCT (non-zero) and the most recent request specified a CCT that did not match.
16	X'40'		The CLASS is invalid. The value is greater than 31.
	X'20'		The STATE is invalid. The value is 0 or greater than 11.
	X'08'		The SCOPE is invalid. A previous request defined a different SCOPE for the resource.
	X'04'		The TOKEN or PARENT TOKEN is invalid.
	X'02'		The resource name (RNA) length is invalid. The length specified is less than 2 or greater than 32 bytes.
	X'01'		An invalid retained state was specified. The retained state is greater than the requested state. If the lock was granted and then retained, it could exist in an incompatible state with other holders.
	X'0080'		TYPE=SINGLE lock request specified but: <ul style="list-style-type: none"> • It is not a P-lock or • a Compatibility class token was also specified or • a parent was also specified
20	N/A		IRLM services are not available.

NOTIFY request

Return Code	Reason Code	Description
04	X'80'	An asynchronous request was accepted.
	X'40'	The receiver returned additional return code information to the requester.
	X'20'	A selective notify request was made, but there were no DBMSs with the right qualifications to receive this request.
	X'02'	One or more DBMSs holding locks failed and could not be notified.
08	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the NOTIFY request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'08'	NOTIFY request is purged by sync.
	X'40'	The lock is not held by the specified owning work unit.
	X'20'	No lock exists for the specified resource hash and name values.
	X'10'	The target DBMS name is not known to IRLM.
16	X'80'	The message area address is invalid.
	X'08'	The message length is zero.
	X'04'	The TOKEN is invalid.
	X'02'	An invalid resource name was specified. The length is less than 2 or greater than 32 bytes.
20	N/A	IRLM services are not available.

PLEXIT request

Return Code	Reason Code	Description
4	X'80'	The P-lock exit was already enabled.
	X'40'	The P-lock exit was already disabled.
8	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the PLEXIT request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'40'	The P-lock exit was not defined at IDENTIFY time.
20	N/A	IRLM services are not available.

PURGE request

Return Code	Reason Code	Description
04	X'10'	The locks are already released.
	X'08'	The PURGE-required count was decremented.
08	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the PURGE request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'80'	A PURGE TYPE=TAKEOVER was issued, but the requester did not issue a corresponding TAKEOVER request.
	X'40'	A PURGE TYPE=SFAIL was issued, but this IRLM is still part of the data sharing group. An IRLM cannot be in system failed state while it is part of a data sharing group. This code indicates that IMS has invalid information about its status in the group.
	X'20'	A PURGE-BY-WORK-UNIT was issued but no owning work unit was specified.
	X'10'	A PURGE-BY-WORK-UNIT was issued but is not supported by all members.
16	X'01'	A GENERIC PURGE request was made but the resource name is zero or the name length is out of range.
20	N/A	IRLM services are not available.

QUERY request

Return Code	Reason Code	Description
04	X'80'	There is no information meeting the criteria of the specified parameters.
	X'01'	The QUERY request did not specify an area large enough to contain all the data requested.
08	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the QUERY request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
16	X'80'	The AREA address is invalid or zero.
	X'40'	An invalid continuation token was specified.
	X'08'	The AREA length is invalid. The AREA length is less than 4.

Return Code	Reason Code	Description
	X'04'	The TOKEN is invalid. The TOKEN value does not correspond to an existing lock, or the lock is not held by the designated work unit.
	X'02'	The resource name length is invalid. The length specified is less than 2 or greater than 32 bytes.
	X'01'	The DATA=RETAIN parameter is invalid. SCOPE=WU, OWU, or TOKEN was specified.
20	N/A	IRLM services are not available.

QUIT request

Return Code	Reason Code	Description
04	X'10'	Modify locks are retained.
08	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the QUIT request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'80'	The owing work unit (OWU) specified on a HELD=WORKUNIT request was not found.
	X'40'	The owing work unit (OWU) parameter was not specified on a HELD=WORKUNIT request.
	X'20'	A QUIT HELD=RETAIN request was already processed.
	X'10'	This IRLM has no knowledge of this DBMS. Either a QUIT HELD=RELEASE was already processed or the DBMS was never identified to this IRLM.
20	N/A	IRLM services are not available.

RETLOCK request

Return Code	Reason Code	Description
04	X'80'	A retained lock already exists for this resource by this DBMS.
	X'40'	A retained lock on the resource in a different state already exists. The states were merged and the resultant state was used to update the existing retained lock.
16	X'80'	DBMS name specified on the request is either zero or blank.

Return Code	Reason Code	Description
4	40	A retained lock already exists for this resource by this DBMS and the REQUESTED retained state is not equal to the current retained state.

STAT request

Return Code	Reason Code	Description
8	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the STAT request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'80'	The SSNAME specified a subsystem not identified to this IRLM.
16	X'80'	The AREA address is invalid or zero.
	X'08'	The AREA length is invalid.
20	N/A	IRLM services are not available.

SYNC request

Return Code	Reason Code	Description
8	X'80'	A nonrecoverable system error occurred while processing this request.
4	X'08'	At least one request matched the cancel criteria and was canceled by IRLM.
	X'01'	There is insufficient storage for the IRLM to process the SYNC request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'80'	CANCEL=YES was specified, but the work unit held no locks.
	X'40'	The caller specified RESUME=NO but did not give the TAGET RLPL of the request to cancel.
14	X'10'	The work unit was not found.
20	N/A	IRLM services are not available.

TAKEOVER request

Return Code	Reason Code	Description
00	N/A	Takeover completed successfully for a DBMS that was identified either to this IRLM or to the IRLM in PTB communication with . Restart locks might be requested.
04	X'80'	Takeover completed successfully for a DBMS that was not known to this IRML.
08	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the TAKEOVER request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
12	X'80'	The DBMS that issued the request was not identified as an alternate DBMS.
	X'40'	The DBMS being taken over identified itself as an alternate DBMS, or another DBMS already issued a takeover request.
20	N/A	IRLM services are not available.

UNLOCK request

Return Code	Reason Code	Description
04	X'80'	One or more locks are held. Some locks did not satisfy the generic resource specification.
	X'20'	Additional locks are held in other states. This applies only to count-by-state locks.
	X'10'	The IRLM cannot release one or more parent locks because child locks exist.
	X'08'	The lock was not fully released.
	X'04'	The work unit holds locks in other classes.
	X'02'	Locks could not be released because the duration specified on the request was lower than the duration previously set.
08	X'80'	A nonrecoverable system error occurred while processing this request.
	X'40'	A P-lock conditional request would have had to wait on a held resource latch. The resource latch could have been held by an in-progress P-lock negotiation or a Notify with Latch request.
	X'01'	There is insufficient storage for the IRLM to process the UNLOCK request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.

Return Code	Reason Code	Description
12	X'40'	The work unit does not hold the lock.
	X'20'	No lock exists for the specified resource hash and name values.
	X'10'	The IRLM cannot release the parent lock because child locks exist.
	X'08'	The lock is not held in the specified STATE.
	X'04'	The lock is not held in the specified class.
16	X'40'	The CLASS is invalid. The value is greater than 31.
	X'20'	The STATE is invalid. The value is greater than 11.
	X'10'	The owning work unit (OWU) parameter is not specified.
	X'04'	The TOKEN is invalid.
	X'02'	The resource name (RNA) length is invalid. The length specified is less than 2 or greater than 32 bytes.
	X'01'	TYPE=GENERIC was specified, but no resource name (RNA) was specified.
20	N/A	IRLM services are not available.

VERIFY request

Return Code	Reason Code	Description
00	X'80'	At least one entry in the VERIFY list was not known to IRLM.
	X'40'	IRLM recognized at least one entry in the VERIFY list, but the entry did not have matching DBRC RECON status.
08	X'80'	A nonrecoverable system error occurred while processing this request.
	X'01'	There is insufficient storage for the IRLM to process the VERIFY request. After all other subsystems identified to the IRLM have quit, terminate the IRLM and increase the storage available to the IRLM before restarting it.
16	X'80'	The VERIFY SSNAREA area address is invalid.
20	N/A	IRLM services are not available.

Chapter 61. IRLM Abend Reason Codes

2017

Explanation: This is an internal error. IRLM processing of a request from a database management system (DBMS) failed. The IRLM issues console message DXR123E containing the error ID.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Obtain the SDUMP and check the error ID in the message. Contact the IBM Support Center for help in determining the problem.

Problem Determination: The problem usually is a program check within the IRLM code. The dump title includes a module name and an offset into the module where the ABEND was issued.

2018

Explanation: An unrecoverable error occurred during IRLM initialization. The IRLM issues console message DXR116E containing an error code.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested for some of the error codes.

System Programmer Response: Analyze the error code in message DXR116E to determine the reason for this failure. If you are unable to resolve the problem, contact the IBM Support Center.

2019

Explanation: This is an internal error. The IRLM detected either a destroyed storage pool or an invalid request. The IRLM issues message DXR122E to the console.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Obtain the SDUMP and contact the IBM Support Center for help in determining the problem.

Problem Determination: The dump title includes a module name and an offset into the module where the ABEND was issued.

2020

Explanation: The MVS operator requested an abnormal termination of the IRLM. The IRLM issues message DXR124E to the console.

System Action: The IRLM is terminated abnormally. If the NODUMP parameter was omitted from the command, an SDUMP is requested.

System Programmer Response: The SDUMP shows the status of the IRLM.

2022

Explanation: This is an internal error. IRLM issues this abend because one of its subtasks abended. The IRLM issues message DXR122E to the console.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Obtain the SDUMP and contact the IBM Support Center for help in determining the problem.

Problem Determination: The dump title includes a module name and an offset into the module where the ABEND was issued.

2023

Explanation: The IRLM encountered an out-of-storage condition either from a logic error, a subsystem definition error, or an error from an MVS service that must be performed for the IRLM to continue processing. The IRLM message DXR175E is issued to the console to help identify the error, followed by the DXR122E message describing the abend.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested and will be issued unless superceded or suppressed.

System Programmer Response: From the information in message DXR175E, determine what storage was in error and what the probable cause is. If IBM Service is required, obtain the SDUMP and contact the IBM Support Center for help in determining the problem.

Problem Determination: The dump title includes a module name and an offset into the module where the ABEND was issued.

2024

Explanation: This is an internal error. The database management system (DBMS) parameter list is invalid.

System Action: The requesting DBMS is abended with user abend 2024. The IRLM continues processing.

System Programmer Response: Obtain the dump of the requesting DBMS and contact the IBM Support Center for assistance.

2025

Explanation: This is an internal error. An IRLM request to MVS failed with an unexpected reason code.

2027 • 2031

The IRLM issues message DXR139E to the console with the failing return and reason codes. Message DXR122I is also issued.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Obtain the SDUMP and contact the IBM Support Center for help in determining the problem.

Problem Determination: The dump title includes a module name and an offset into the module where the ABEND was issued.

2027

Explanation: This is an internal error. The IRLM detected a logical inconsistency in either its processing or the local lock structure. IRLM issues message DXR122E to the console.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Obtain the SDUMP and contact the IBM Support Center for help in determining the problem.

Problem Determination: The dump title includes a module name and an offset into the module where the ABEND was issued.

2031

Explanation: This is an internal error. The IRLM requested that MVS terminate the IRLM address space because of a previous error. The IRLM issues message DXR122E to the console.

System Action: The IRLM terminates abnormally. An SDUMP of the IRLM address space is requested.

System Programmer Response: Obtain the SDUMP and contact the IBM Support Center for help in determining the problem.

Problem Determination: The dump title includes a module name and an offset into the module where the ABEND was issued.

Part 6. SNA codes

Chapter 62. SNA sense codes.	1343
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Chapter 62. SNA sense codes

This section describes the SNA sense codes issued by the DB2 product when an error is detected on an LU6.2 conversation. We have also included some SNA sense codes which DB2 does not issue but users often have trouble diagnosing.

There are many SNA sense codes that are not described here. For information concerning the SNA sense codes that are not included, refer to *SNA Formats*.

080F6051

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because the remote site did not accept the security information contained in the SNA FMH5.

This abend reason code is issued by the following CSECTs:

DSNLAGNT DSNLTACC DSNLTEXC DSNLVPF5

System Action: The attempt to access the remote database resource fails, and the failure is reported to the application.

A DSNL032I message might have been written to the console. Refer to the description of this message for further information.

User Response: Notify the communications database administrator.

System Programmer Response: If the remote site is a DB2 subsystem, refer to the DSNL030I message at the remote site for the cause of the security failure. Additionally, an ALERT is recorded in NetView (if the NetView product is available) to describe the security failure.

If the remote site is not a DB2 subsystem, obtain any diagnostic information about the security failure at the remote site.

Verify each of the following:

- The USERNAMES column of the SYSIBM.LUNAMES table at the local DB2 system must specify either 'O' or 'B', if you intend authorization IDs and PASSWORDs to be sent on LU6.2 ALLOCATE requests to the remote site.
- The authorization ID and PASSWORD sent on the LU6.2 ALLOCATE request are specified correctly in the SYSIBM.USERNAMES table.
- If you intend to translate the authorization IDs, insure the NEWAUTHID column of the SYSIBM.USERNAMES table is the authorization ID to be used at the remote site.
- If password encryption is used (ENCRYPTPSWDS='Y' in the SYSIBM.LUNAMES table), the remote site must be a DB2 subsystem.

The ENCRYPTPSWDS column of the SYSIBM.LUNAMES table must be correctly set at both the local and remote DB2 subsystems.

- The correct password is set to the remote site.
 1. For encrypted passwords, the password sent to the remote DB2 subsystem is obtained by extracting the password from the local security subsystem of the authorization ID in the NEWAUTHID column of the SYSIBM.USERNAMES.
 2. If password encryption is not used, the password is taken from the PASSWORD column of the SYSIBM.USERNAMES table.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58, 59, 83.

080F6052

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because the security subfields in the FMH5 were not formatted as required by the LU6.2 architecture.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

Programmer Response: Contact the administrator for the client system. The client system might have a software defect.

080FFF00

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because the password supplied to the server has expired.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

Programmer Response: Change the password at the remote database server, so that the password is no longer expired.

080FFF01 • 08120000

Problem Determination: If updating the password does not correct the problem, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58, 59, 83.

080FFF01

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because the password supplied to the server was incorrect.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

User Response: Supply the correct password on the connection request.

Problem Determination: If supplying the correct password does not fix the problem, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58, 59, 83.

080FFF02

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because the userid specified on the request was revoked at the server system.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

User Response: Contact the security administrator at the server to have your userid re-activated.

Problem Determination: If reactivating the userid does not correct the problem, collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58, 59, 83.

080FFF03

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because the userid supplied to the server was invalid.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

User Response: Supply a valid userid on your connection request.

Problem Determination: If the problem cannot be correct by changing the userid, collect the following diagnostic items listed in Appendix B, "Problem

determination," on page 1353: 1, 58, 59, 83.

080FFF04

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because no userid was present in the connection request.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

Programmer Response: Contact the administrator of the client system. The client must be configured to include a userid on connection requests.

080FFF05

Explanation: An attempt to allocate a VTAM LU6.2 conversation failed because a password was not supplied in the connection request.

This abend reason code is issued by the following CSECTs: DSNLAGNT, DSNLVPF5.

System Action: The attempt to access the remote database resource fails, and the failure is reported to the SQL application.

Programmer Response: Contact the administrator of the client system. The client must be configured to transmit a password in the connection request.

This is known in LU6.2 as SECURITY=PGM on the ALLOCATE verb.

08120000

Explanation: A VTAM LU6.2 conversation was terminated due to a resource shortage.

This abend reason code is issued by the following CSECTs:

DSNLAGNT DSNLTACC DSNLTEXC

System Action: The LU6.2 conversation is terminated.

User Response: Notify the systems programmer.

System Programmer Response: If the site issuing this sense code is a DB2 subsystem, refer to the DSNL030I message at the DB2 site for the cause of the failure.

If the remote site is not a DB2 subsystem, obtain any diagnostic information about the resource shortage at the remote site.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

084B0000

Explanation: A VTAM LU6.2 conversation was terminated due to a resource shortage.

This abend reason code is issued by the following CSECT: DSNLVRPL

System Action: The LU6.2 conversation is terminated.

User Response: Notify the systems programmer.

System Programmer Response: If the site issuing this sense code is a DB2 system, refer to the DSNL500I message at the DB2 site for the cause of the failure.

If the remote site is not a DB2 subsystem, obtain any diagnostic information about the resource shortage at the remote site.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

084B6031

Explanation: A VTAM LU6.2 conversation was terminated due to a resource shortage.

This abend reason code is issued by the following CSECTs:

DSNLAGNT DSNLTACC DSNLTEXC

System Action: The LU6.2 conversation is terminated.

User Response: Notify the systems programmer.

System Programmer Response: If the server site issuing this sense code is a DB2 system, refer to the DSNL030I message at the DB2 site for the cause of the failure.

If the remote site is not a DB2 subsystem, obtain any diagnostic information about the resource shortage at the remote site.

Problem Determination: Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 1.

08570008

Explanation: A VTAM LU6.2 conversation is not allowed because the LU session required for the processing of the request is not active.

This sense code is issued by the following CSECTs: DSNLVRPL.

System Action: The LU6.2 conversation is terminated.

User Response: Notify the system programmer about the network failure.

System Programmer Response: If the server site

issuing this sense code is a DB2 subsystem, make sure DDF is started.

If the remote site is not a DB2 subsystem, obtain any diagnostic information about the inactive LU at the remote site.

Problem Determination: Collect the following diagnostic item listed in Appendix B, "Problem determination," on page 1353: 1.

08640000

Explanation: A DEALLOCATE TYPE(ABEND_PROG) verb was issued to terminate the LU6.2 conversation. This occurs when an unrecoverable error was detected during distributed database processing.

This abend reason code is issued by the following CSECTs:

DSNLAGNT DSNLCDCN DSNLCRTD DSNLCSIM
DSNLCTRC DSNLTACC DSNLTEXC DSNLVPF5

System Action: An error was encountered which required the LU6.2 conversation to be terminated abnormally. The conversation is terminated using DEALLOCATE TYPE(ABEND_PROG), which is detected as a communication error at the remote site.

User Response: Notify the systems programmer.

System Programmer Response: Look for messages or SVC dumps at the site which issued the DEALLOCATE TYPE(ABEND_PROG).

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

08640001

Explanation: A DEALLOCATE TYPE(ABEND_SVC) verb was issued to terminate the LU6.2 conversation. This occurs when a remote system encounters an unrecoverable error in attempting to satisfy a distributed database request.

This abend reason code is issued by the following CSECTs:

DSNLVRQX DSNLVRWX DSNLVXAN

System Action: An error was encountered which required the LU6.2 conversation to be terminated abnormally. The conversation is terminated using DEALLOCATE TYPE(ABEND_SVC), which is detected as a communication error at the remote site.

User Response: If the site issuing the DEALLOCATE TYPE(ABEND_SVC) is a DB2 subsystem, that DB2 site is in the process of stopping the distributed data facility (DDF). You must retry your request once DDF is restarted at that site.

System Programmer Response: If the site issuing DEALLOCATE TYPE(ABEND_SVC) was not coming down, look for messages or SVC dumps at that site that would cause the conversation to be terminated.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1.

08640002

Explanation: An SNA conversation was terminated with an SNA ABEND_TIMER indication.

This abend reason code is issued by the following CSECT: DSNLVDDC

System Action: When communication with the coordinator of a unit of work fails and the commit/abort decision has not yet been received, DB2 uses the X'08640002' SNA sense code to terminate conversations with all other LUs involved in the unit of work. This informs the other LUs in the unit of work that a 2-phase commit communication outage occurred. All LUs involved in the unit of work are still able to determine the outcome of the unit of work, because either DB2 or the remote system performs the SNA resynchronization protocol to determine the coordinator's decision (commit or abort) for the unit of work.

System Programmer Response: No action is required.

10086011

Explanation: An invalid LUWID value was detected in the data received from a remote site. When a remote site sends a request using application-directed access, the first portion of the data contains an SNA FMH5 header. This header contains the invalid LUWID.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to allocate an APPC conversation is rejected.

A DSNL032I message might have been written to the console. Refer to the description of this message for further information.

User Response: Notify the systems programmer.

System Programmer Response: The remote site is required to send a valid LUWID value when using application-directed access.

Verify that the remote site issuing this request is indeed attempting to start a conversation using application-directed access. It is possible that the remote site mistakenly attempted to start a conversation with DB2, using the transaction program name (TPN).

If the remote site is attempting to start a conversation using application-directed access, contact the support

group for the remote site to determine why an invalid LUWID is being transmitted.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58, 59, 83.

10086021

Explanation: A remote site sent a request that specifies an unknown transaction program name (TPN). The first message in the request contains an SNA FMH5 header, which specifies the TPN to be used.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to allocate an APPC conversation is rejected.

A DSNL032I message might have been written to the console. Refer to the description of this message for further information.

User Response: Notify the systems programmer.

System Programmer Response: This error is usually caused by one of these errors:

- DB2 returns this sense code to an application at a remote site when the application mistakenly routes an LU6.2 ALLOCATE request to DB2. In most cases, the remote site selected the wrong partner LU name (DB2's LU name) on the LU6.2 ALLOCATE verb.
- A DB2 server received an invalid Transaction Program Name (TPN) from a DRDA requester. The only DRDA TPN that DB2 considers valid is X'07F6C4C2'.
- If DB2 receives this sense code from a remote site, one of the following can potentially be the cause:
 1. If you are using application-directed access, the remote site does not support application-directed access. This can occur if the remote site is a DB2 Version 2 Release 2 system, which does not support application-directed access.
 2. If you are using system-directed access, the remote site issues this sense code if it is not another DB2 site. System-directed access is only supported between DB2 subsystems. Other systems do not support this function.
 3. The SYSIBM.LOCATIONS table does not specify the correct LUNAME value for your intended destination. This causes VTAM to route your request to the wrong site, which probably does not support distributed database functions.
 4. The remote site does not support distributed two-phase commit protocols, but the VTAM APPL definition for the remote LU specifies that two-phase commit protocols are supported. This can occur if the remote site is a DB2 Version 2 system which has SYNCLVL=SYNCPPOINT specified in its VTAM APPL definition. For DB2 Version 2 systems, the VTAM APPL definition

statement should specify SYNCLVL=CONFIRM (the default), since DB2 Version 2 systems do not support distributed two-phase commit protocols.

If none of the above explains the failure, you must contact the support group for the remote site to determine why an invalid TPN is being transmitted.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58, 59, 83.

10086031

Explanation: A remote site rejected a request using system-directed access because it contained program initialization parameters (PIP) in the SNA FMH-5 header. This error indicates the remote site is not another DB2 subsystem.

This abend reason code is issued by the following CSECT: None

System Action: The attempt to allocate an APPC conversation is rejected.

User Response: The failing SQL statement specified an SQL object that was either:

- An ALIAS for a remote object
- Or a three-part name identifying a remote object.

This access method can only be used when the remote object resides on another DB2 subsystem.

If the remote object resides on a different relation database system, you must use application-directed access to access the remote object.

System Programmer Response: If DB2 receives this sense code when attempting to start a conversation, the SYSIBM.LOCATIONS table probably has an incorrect LUNAME value for the failing site. If the wrong LUNAME is provided, VTAM routes the request to the wrong network destination.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58, 59.

10086034

Explanation: An SNA FMH5 was received that requested an APPC conversation type (MAPPED or BASIC), which was not consistent with the transaction program name (TPN) specified.

System Action: The attempt to allocate an APPC conversation is rejected.

A DSNL032I message might have been written to the console. Refer to the description of this message for further information.

User Response: Notify the systems programmer.

System Programmer Response: The conversation type must be BASIC.

If DB2 sends this sense code to a remote site, an APPC application probably mistakenly routed an APPC ALLOCATE request to DB2.

If DB2 receives this sense code from a remote site, the DB2 SYSIBM.LOCATIONS table might have an incorrect LUNAME value for the failing LOCATION. This causes VTAM to route the request to the wrong destination, which can potentially be flagged in this manner.

If none of the above explains the failure, contact the support group for the remote site to determine why the conversation type is being sent incorrectly.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58, 59, 83.

10086041

Explanation: An SNA FMH5 was received that requested a SYNC_LEVEL that was not consistent with the transaction program name (TPN) specified.

This abend reason code is issued by the following CSECT: DSNLVPF5

System Action: The attempt to allocate an APPC conversation is rejected.

A DSNL032I message might have been written to the console. Refer to the description of this message for further information.

User Response: Notify the systems programmer.

System Programmer Response: The SYNC_LEVEL must be NONE.

When DB2 sends this sense code, it is usually caused by an APPC application that mistakenly routed an APPC ALLOCATE request to DB2.

If DB2 receives this sense code, the DB2 SYSIBM.LOCATIONS table probably has an incorrect LUNAME value for the failing LOCATION. This causes VTAM to route the request to the wrong destination, which can potentially be flagged in this manner.

If none of the above explains the failure, you must contact the support group for the remote site to determine why the SYNC_LEVEL is being sent incorrectly.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58, 59, 83.

800A0000

800A0000

Explanation: A distributed database message was truncated during transmission through the network. When the data is being transmitted, the data is broken up into smaller pieces, based on the SNA RU size specified by your Communications Administrator. This error indicates that one or more device in your network could not accept messages of the size specified in the chosen RU size.

This abend reason code is issued by the following CSECT: None

System Action: The conversation is terminated.

User Response: Notify the systems programmer.

System Programmer Response: The data flowing to the failing destination specified an RU size that was too large for the network connections used to route the data. One of two actions must be taken:

1. The network connections along the path must be changed to support the largest PIU being transmitted (a PIU is 29 bytes longer than the RU size you specify).

For VTAM channel-to-channel connections, the MAXBFRU parameter on the VTAM LINE statement is used to control this function. MAXBFRU specifies the number of 4KB buffers used to pass data over the channel. Since a PIU includes a 29 byte header, MAXBFRU must be at least 2 in order to support an RU size of 4096.

For connections to NCP, the MAXDATA parameter on the PCCU macro must be large enough to hold an entire PIU.

2. If you would rather not change the MAXBFRU and MAXDATA values, a smaller RU size must be specified. This can be accomplished by reducing the RUSIZES parameter for each MODEENT macro used by DB2 in your LOGMODE table.

Problem Determination: Collect the following diagnostic items listed in Appendix B, "Problem determination," on page 1353: 1, 58.

Part 7. Appendixes

Appendix A. CICS Transaction Abend/Dump Code

DSNC

Explanation: The CICS attachment facility has detected an error. This is the 4-character code that identifies the ABEND/DUMP as a CICS attachment facility request for the CICS transaction associated with the error. This ABEND/DUMP is usually associated with one of the other CICS attachment facility X'04E' abends.

This code is issued by the following CSECTs:
DSNCEXT1, DSNCSTOP

System Action: The CICS attachment facility processing proceeds as defined for the X'04E' system abend associated with the dump. If diagnostic information is required and the CICS attachment facility determines that the transaction should also be abended, EXEC CICS ABEND is issued using DSNC as the abend code. Otherwise dump continue, EXEC CICS DUMP, is issued with DSNC as the dump code, and a return code is placed in the application's SQLCA.

User Response: Notify the system programmer.

Operator Response: Notify the system programmer.

System Programmer Response: The Problem Determination section of this message provides information in addition to the information that is related to the associated CICS attachment facility abend. Use it to assist you in determining the cause of the error.

Problem Determination: The reason for the error can be determined by the codes in the CLOTCTRL field of the CLOT control block, included in the dump. Explanations of codes in this field are as follows:

- 00 Normal, no error.
- 04 RCT entry has been corrupted or overlaid. See message DSNC044.
- 08 Attach Installation error.
- 0C Shutdown is in progress.
- 10 Abend because of 'no threads available'.
- 14 Serious error (system abend X'04E', reason code '00C30001').
- 18 The thread subtask has abended; see subtask dump.
- 1C Sign-on failed.
- 20 Resource is unavailable.
- 24 Create thread failed for a reason other than resource contention.
- 28 Unknown CICS call type.
- 2C Indoubt condition lost to CICS cold start.

- 30 Unit of recovery (UR) token for resolve indoubt is not in the indoubt list.
- 34 DB2 UR indoubt is inconsistent—CICS indicates that it should not be indoubt.
- 38 UR resolution is inconsistent—CICS indicates abort, but DB2 indicates commit.
- 3C DB2 resolve indoubt failed.
- 40 Deadlock; roll back the transaction.
- 44 Unknown CICS resource manager call.
- 48 TWA size too small for CICS attachment facility command processor program (DSNCCOM1). See message DSNC047.
- 4C Unable to interpret SQL call.
- 50 Shutdown during commit or abort
- 54 Abort is the only valid request.
- 58 Wrong language interface used with instrumentation facility interface application
- 5C Cannot link to dynamic plan exit.
- 60 Single phase commit failed.
- 64 Task was purged under CICS.

If the thread subtask has abended, a reason code has been put into the CLOTWRK1 field and the abend code put into the CLOTWRK2 field. The reason code can also be found in the CICS trace table, at TRACE ID X'C0', FIELD B.

Collect the subtask SNAP dump and refer to the reason code found in Part 4, "Section 4. DB2 Codes," on page 773. The Problem Determination section of some reason codes refers to register contents at the time of the abend. The register contents can be found in the SNAP dump under RTM2WA SUMMARY. Register contents can also be found in the SYS1.LOGREC record.

Appendix B. Problem determination

Diagnostic items

1. Console output from the system on which the job was run, and a listing of the SYSLOG data set for the period of time spanning the failure.
2. Dynamic dump, taken to SYS1.DUMPxx data set, by DB2 (04E/04F abends).
3. SVC dump (or system dump), taken to SYS1.DUMPxx data set, as result of an operator initiated dump command or SLIP trap exit.
4. SYSABEND, SYSUDUMP, or SYSMDUMP output.
5. Listing of SYS1.LOGREC data set, obtained by executing IFCEREP1.
6. Listing of DB2 log output.
7. Link pack area map (LPAMAP) and nucleus load module map, obtained by executing AMBLIST.
8. Listing of the procs used to initialize DB2 address spaces.
9. Listing of DSNZPARM module used.
10. IDCAMS LISTCAT output for the ICF (VSAM) catalog containing the DB2 subsystem catalog that defined the failing index or table.
11. IDCAMS LISTCAT output showing the attributes of all of the active log data sets for the member of the DB2 member that failed.
12. VTOC listing of the DASD volume on which the failing operation occurred.
13. Dump of the index or table space that failed.
14. Listing of the results produced by the SQL statements.
15. Listing of DB2 catalog tables.
16. Contents of the BSDS (both copies if dual BSDS in use) obtained by using the DB2 print log map (DSNJU004) utility.
17. Source listing of the failing application program.
18. IRLM trace output.
19. Output of the GTF trace (if requested by IBM).
20. Listing of the DSNTRACE data set for the DSN (TSO attachment facility) session involved in the problem.
21. Listing of the ISPF log for the session involved in the problem.
22. CICS trace listing.
23. CICS attach MVS SNAP dump.
24. CICS transaction dump.
25. IMS trace output.
26. IMS dependent region and/or control region dump.
27. IMS/VS Version 1 system log information, for the period of time spanning the failure.
28. VVDS dump of the volumes containing the data set.
29. DB2 Repair dump of the requested page.
30. DSN1LOGP detail report containing log records associated with the damaged page.
31. Detailed description of events immediately prior to and during the abend.
32. SYSPRINT output, including JCL, for the application program or batch job and system messages that were issued. Make sure that MSGLEVEL=(1,1) on the JOB statement so that all diagnostic information is sent to SYSPRINT.
33. DB2 log output, including any DB2 Recovery Log Archive Tapes.
34. DB2 dump of the requested page.
35. Definitions of views and tables involved in the error.
36. Listing of the IRLM procedure.
37. Definitions of table spaces, tables, and indexes involved in the error.
38. Results from SELECT * from SYSIBM.SYSDATABASE.
39. Use IDCAMS to print from BSDS the record with key of X'16000001'.
40. DB2 Repair dump of the pages identified in DSNIO14I messages.

41. CHECK utility output.
42. DB2 Repair dump of the pages identified in DSNIO13I messages.
43. A copy via (DSN1COPY) of the index space or table space identified in the DSNIO13I messages on tape.
44. DB2 Repair dump of the header page (page 0) for each index identified in the DSNIO13I messages.
45. IMS console log.
46. UTPRINT output produced by utility invocation of SORT.
47. Repair dump of all SYSUTIL pages.
48. Dump of page set from DUMP option of REPAIR.
49. All dumps taken by the attachment facility or requesting application.
50. Console output from the system on which the job was run, and a listing of the MVS SYSLOG data set for the period from the last IPL to the time of the failure.
51. An MVS stand-alone dump.
52. Precompiler listing of failing application program with SOURCE(YES) and XREF(YES) specified.
53. Listing of SYSIBM.SYSLGRNX and/or SYSLGRNG, and SYSIBM.SYSCOPY.
54. A copy of the DDITV02 SYSIN data set.
55. A copy of the DDOTV02 output data set.
56. The console output and the listing of the SYSLOG data set from each connected site for the period of time spanning the failure.
57. The listings of the SYS1.LOGREC data set, obtained by executing IFCEREP1 at each connected site.
58. A listing of the contents of the SYSIBM.IPNAMES and SYSIBM.LUNAMES tables at the local DB2 system and the remote DB2 system.
59. A listing of the contents of the SYSIBM.USERNAMES table at the local DB2 system and the remote DB2 system.
60. Dynamic dump, taken to SYS1.DUMPx data set, by DB2 (04E/04F abends). Availability of this dump is dependent upon the failing environment.
61. SYSABEND, SYSUDUMP, or SYSMDUMP output. Availability of these dumps is dependent upon the failing environment.
62. A copy (via DSN1COPY) on tape of the page set containing the DB2 Directory. Alternatively, request a dump (produced by the REPAIR Utility, DSN1COPY or DSN1PRNT) of the DBD for each database identified in the DSNIO13I messages.
63. Listing of SYS1.LOGREC data set, obtained by executing IFCEREP1 and ISDASDA0.
64. A copy of the table and index taken via DSN1COPY before any recover is performed.
65. Detailed description of events prior to the abend such as recovery or other activity affecting DSNDB06.SYSDBASE, DSNDB01.DSD01, or the subject table spaces.
66. Definitions of table spaces, tables, and indexes involved in the error. The record identifiers (OBIDs) identified with each table in the table space with the error can be obtained from SYSIBM.SYSTABLES.
67. Listing of the entire table space.
68. Listing of the DBD, obtained by executing UTILITY DIAGNOSE OBD.
69. Unformatted DSN1PRNT output of the DSNDB01.DBD01 page set. Use the method described in Part 5 of *DB2 Diagnosis Guide and Reference* to locate the inconsistent DBD in the DSNDB01.DBD01 page set.
70. The results of the following SQL:
 - SELECT * FROM SYSIBM.SYSINDEXES WHERE DBID=dbid ORDER BY OBID; Where dbid is the DBID of the damaged DBD.
 - SELECT * FROM SYSIBM.SYSINDEXES WHERE DBID=dbid ORDER BY ISOBID;

- SELECT * FROM SYSIBM.SYSLINKS WHERE DBID=dbid ORDER BY OBID;
- SELECT * FROM SYSIBM.SYSTABLES WHERE DBID=dbid ORDER BY OBID;
- SELECT * FROM SYSIBM.SYSTABLESPACE WHERE DBID=dbid ORDER BY OBID;
- SELECT * FROM SYSIBM.SYSTABLESPACE WHERE DBID=dbid ORDER BY PSID.

Use the results to compare the information in the DB2 Catalog with the DBD. Determine which OBDs are inconsistent with the DB2 Catalog. Use Part 5 of *DB2 Diagnosis Guide and Reference* to analyze the DBD.

71. DSN1LOGP output with DBID (1) OBID (1F) covering the period of time in which the DBD inconsistency may have occurred. This period of time is roughly from the time of the ABEND back to the time when the DB2 Catalog and DBD were believed to be consistent.
72. A copy of the log for this period so that additional DSN1LOGP reports can be produced for problem determination.
73. The location used in the alias entry in SYSIBM.SYSTABLES.
74. The contents of the SYSIBM.LOCATIONS table.
75. The AUTHORIZATION ID, PLANNAME, and LUNAME of the thread used to select the MODENAME in the SYSIBM.MODESELECT table.
76. The contents of the SYSIBM.LOCATIONS table and the SYSIBM.MODESELECT.
77. Listing of the contents of SYSIBM.LUMODES in the communications database.
78. System log printout (obtained via MVS WRITELOG operator command) showing related VSAM/media manager messages that may appear there (usually needed only if you have a message or reason code that indicates a media manager services problem occurred).
79. A hexadecimal print of the first record of the failing DBRM.
80. The listing from the precompile job that generated the DBRM.
81. Output from the BIND attempt.
82. IMS or CICS trace and any dumps.
83. Statistics Class 4 trace record for the LUWID associated with the failing request.
84. All dumps created by this failure.
85. Job output
86. Print the contents of the SYSIBM.IPNAMES table.
87. Print the contents of the SYSIBM.IPLIST table.

Resource types

Table 3. Resource Types

TYPE Code	Type of Resource	Name, Content, Format
00000100	Database	DB
00000200	Table space	DB.SP
00000201	Index space	DB.SP
00000202	Table space	RD.DB.TS
00000205	Compression Dictionary	DB.SP
00000210	Partition	DB.SP.PT
00000220	Data set	DSN
00000230	Temporary file	SZ
00000240	Database procedure	DBP
00000300	Page	DB.SP.PG
00000301	Index minipage	DB.SP.PG.MP

Table 3. Resource Types (continued)

TYPE Code	Type of Resource	Name, Content, Format
00000302	Table space page	DB.SP.PG
00000303	Index space page	DB.SP.PG
00000304	Table space RID	DB.SP.RID
00000305	Index access/table space RID	DB.SP.RID
00000306	Index access/table space page	DB.SP.PG
00000307	Index space EOF	DB.SP.01
00000400	ICF catalog	IC
00000401	Authorization function	
00000402	Security Server	SAF/RACF return/reason codes
00000500	Storage group	SG
00000600	EDM pool space	
00000602	EDM DBD Space	
00000603	EDM DYNAMIC STATEMENT Space	
00000700	Buffer pool space	BP
00000701	Group buffer pool	GBP
00000800	Plan	PL
00000801	Package	COLLECTION. PACKAGE. CONTOKEN BINDLOCK
00000802	BINDLOCK	
00000900	32KB data area	
00000901	Sort storage	
00000903	Hash anchor	DB.SP.PG.AI
00000904	RIDLIST storage	
00000905	IRLM storage	
00000906	DB2	MEMBER
00000907	Data Space	MEMBER
00000908	Basic Floating Point Extensions Facility	
00000909	Extended Time-of-Day (TOD) Clock	
00000A00	Table	RD.CR.TB
00000A10	Alias	RELDEP. OWNER. ALIAS
00000A11	Distinct type	SC.DT
00000A12	User-defined function	SC.SN
00000A13	Stored procedure	SC.SN
00000A14	Sequence	
00000B00	View	RD.CR.VW
00000C00	Index	RD.CR.IX
00000C01	Index	CR.IX
00000D00	DBID/OBID	RD.DI.OI
00000D01	DBID/OBID	DI.OI
00000D02	OBID	OI
00000E00	SU limit exceeded	CN
00000F00	Auxiliary column	DI.OI. ROWID. COLN
00000F01	LOB lock	DIX.PIX. ROWID. VRSN
00001000	DDF	LOCATION
00001001	System conversation	LU.MODE. RTNCD. FDBK2. RCPRI. RCSEC. SENSE
00001002	Agent conversation	LU.MODE. RTNCD. FDBK2. RCPRI. RCSEC. SENSE
00001003	CNOS processing	LU. MODE. RTNCD. FDBK2. RCPRI. RCSEC. SENSE

Table 3. Resource Types (continued)

TYPE Code	Type of Resource	Name, Content, Format
00001004	CDB (Communication database)	LOCATION. AUTHORIZATION ID. PL
00001005	DB access agent	LOCATION
00001007	TCP/IP domain name	LINKNAME. DOMAIN. ERRNO
00001008	TCP/IP service name	LOCATION. SERVICE. ERRNO
00001102	Bootstrap data set (BSDS)	MEMBER
00002000	Table space CS-claim class	DB.SP
00002001	Table space RR-claim class	DB.SP
00002002	Table space write-claim class	DB.SP
00002003	Index space CS-claim class	DB.SP
00002004	Index space RR-claim class	DB.SP
00002005	Index space write-claim class	DB.SP
00002006	Table space partition CS-claim class	DB.SP.PT
00002007	Table space partition RR-claim class	DB.SP.PT
00002008	Table space partition write-claim class	DB.SP.PT
00002009	Index space partition CS-claim class	DB.SP.PT
00002010	Index space partition RR-claim class	DB.SP.PT
00002011	Index space partition Write-claim class	DB.SP.PT
00002100	Table space DBET entry	DB.SP
00002101	Index space DBET entry	DB.SP
00002102	Table space partition DBET entry	DB.SP.PT
00002103	Index space partition DBET entry	DB.SP.PT
00002104	DBET hash chain lock timeout	INTERNAL LOCK NN
00002105	Logical partition DBET entry	DB.SP.PT
00002200	Routine Parameter Storage	DB.SP.PT
00003000	Code (release maintenance_level or system parameter)	REL, APAR, ZPARM
00003002	Number of Stored Procedures	
A10X	Alias	RD.CR.AL

Where	Stands for	Where	Stands for
AI	Hash anchor ID	OI	OBID in decimal of resource
ALIAS	Alias owner	OWNER	Alias owner
APAR	APAR number	REL	DB2 release name
AUTHORIZATION ID	DB2 authorization identifier	PACKAGE	Package identifier
BP	Buffer pool identifier	PG	Hexadecimal page number
CN	Column name	COLN	Column number within the base table of the LOB column that has been marked invalid.
DIX	DBID in hexadecimal	PL	Plan identifier
COLLECTION	Collection-ID of the package	PT	Decimal partition number
CONTOKEN	Consistency token of the package	RCPRI	APPC primary return code
CR	Creator of the object	RCSEC	APPC secondary return code
DB	Database name	RD	DB2 release dependency mark
DBP	Database procedure name	RELDEP	DB2 release dependency mark

DI	DBID in decimal of resource	RID	Record Identifier
DSN	Data set name	RTNCD	VTAM primary return code
FDBK2	VTAM secondary return code	MEMBER	Group member name
GBP	Group buffer pool name	SENSE	SNA sense codename
IC	ICF catalog alias name	SG	Storage group name
IX	Index name	SP	Space name
LOCATION	Location in which the specified resource is not available	SZ	Temporary file page size
LU	Logical unit name	TB	Table name
MODE	Logical unit mode name	TS	Table space name
MP	Hexadecimal mini-page number	VW	View name
NN	Decimal number of the hash chain		

ABEND codes associated with DSN1COPY misuse

The following table represents the possible combinations of ABEND reason codes, CSECT-names, and ERQUAL's that can result from the improper use of DSN1COPY. An improper use includes, but is not limited to:

- Specifying the wrong OBIDXLAT values
- Not restoring all the datasets of the table space or index space to the same level
- Restoring datasets to a level that does not match the definition in the catalog and directory
- Restoring one table space type to a different type (e.g. segmented to simple).

This table is not meant to be exhaustive, but contains the more common codes, or those that are likely to have been caused by DSN1COPY misuse. However, this does not eliminate the possibility that the occurrence of these ABEND codes can be caused by other errors, such as an inconsistent DBD, or a DB2 internal error. The numbers under 'Explanation' refer to the notes following the table.

Table 4. ABEND Reason Codes Associated with DSN1COPY Use

ABEND Reason Code	CSECT-name: ERQUAL	Explanation
00C90101	DSNICKEY:5005	8
	DSNICKEY:5006	8
	DSNICSEL:5003	1
	DSNICSEL:5008	3
	DSNICUMW:5004	4
	DSNICUMW:5005	2
	DSNIDFR:5005	13
	DSNIDL0D:501B	6
	DSNIIMS1:5006	3
	DSNIIMS1:5008	3
	DSNIIMS1:500A	3
	DSNIISF:5001	3
	DSNILPG:5013	6
	DSNIMOFR:500B	1
	DSNIMOFR:500C	1
	DSNIMRST:5001	1
	DSNIMRST:5002	1
	DSNIMRST:5003	1
	DSNIMSMS:5004	2

Table 4. ABEND Reason Codes Associated with DSN1COPY Use (continued)

ABEND Reason Code	CSECT-name: ERQUAL	Explanation
	DSNINXTP:5008	6
	DSNIOSEL:5002	2
	DSNIOSEL:5003	2
	DSNIOSEL:53DD	3
	DSNIOSEL:53DE	3
	DSNIPOCR:5005	2
	DSNIPOCR:5007	2
	DSNIPOCR:5009	2
	DSNIPOCR:500B	2
	DSNIPOCR:500D	2
	DSNIPOCR:500F	2
	DSNIPTYM:5006	6
	DSNIRECU:5002	2
	DSNIREDR:5007	1
	DSNIREDR:5008	1
	DSNIREDR:5009	1
	DSNIRELF:5011	2
	DSNIRELK:5001	1
	DSNIRLPG:500B	2
	DSNIRLPG:500C	1
	DSNIRLPG:5011	2
	DSNIRNXT:53D3	3
	DSNIRNXT:53DD	3
	DSNIRNXT:53DE	3
	DSNISEGD:5002	2
	DSNISEGD:5005	6
	DSNISEGF:5002	2
	DSNISEGR:500A	6
	DSNISEGR:500C	2
	DSNISEL:5006	1
	DSNISEL:5007	1
	DSNISEL:500A	3
	DSNISEL:500D	3
	DSNISESE:5001	1
	DSNISESE:5002	1
	DSNISESE:5003	1
	DSNISESR:5001	2
	DSNISESR:5002	1
	DSNISESR:5004	1
	DSNISESR:5005	1
	DSNISFS:53DD	3
	DSNISFS:53DE	3
	DSNISFX:5008	2
	DSNISGNS:5003	2
	DSNISGNS:5004	2
	DSNISGSS:5001	1
	DSNISMRS:5001	1
	DSNISRID:53DD	3
	DSNISRID:53DE	3
	DSNISRTI:5004	1
	DSNIWLPG:5003	6
	DSNKCKIS:5003	11

Table 4. ABEND Reason Codes Associated with DSN1COPY Use (continued)

ABEND Reason Code	CSECT-name: ERQUAL	Explanation
	DSNKFIND:5001	11
	DSNKFNT:5003	12
	DSNKLVLN:5006	11
	DSNKLVLN:5007	11
	DSNKMDLE:5005	10
	DSNKMDLE:5007	10
	DSNKNEXT:5001	11
	DSNKNEXT:5004	11
	DSNKPOCI:5004	11
00C90105	DSNIBROK:0CA4	6
00C90206	DSNIIDIS:5002	4
00C90210	DSNKFIND:5002	11
	DSNKFIND:5005	11
	DSNKFIND:500B	11
00C90212	DSNKDNEX:5005	11
00C90213	DSNIRSET:500C	2
00C90214	DSNKISRT:5005	8
	DSNKISRT:5006	11
	DSNKLOD:500F	8
	DSNKLOD:5011	11
00C90215	DSNKFIND:5006	9
	DSNKFIND:5007	9
00C90216	DSNIRFNX:5008	1
00C90218	DSNIDL0D:5014	6
	DSNISEGD:5007	6
	DSNISGSC:5001	6
	DSNISNPG:5004	6
00C90219	DSNIDL0D:5015	2
	DSNISEGD:5008	2
	DSNISGSC:5002	2
	DSNISNPG:5005	2
00C9021A	DSNIRFNX:500A	2
	DSNIRFNX:500B	2
	DSNISFS:5007	2
	DSNISFS:5008	2
00C90221	DSNISGAU:5007	6
00C9021C	DSNIRFNX:5006	6
	DSNISNPG:5007	6

Explanations

The following explanations are groups of inconsistencies that relate to the ABEND codes, separated by user table spaces and user index spaces. Within each group are examples of specific inconsistencies representing each group.

User Table Spaces

1. Record or field length in the data does not match the length in the OBD
 - Either the fixed lengths do not match, or the variable length of the record is greater than the maximum allowed in the OBD
2. Record OBID in the data does not agree with the OBD
 - OBD corresponding to the OBID from the data cannot be found in the DBD, or the OBD in the DBD is of a different type.
3. Number of columns in the data row does not match the OBD definition
 - An ALTER ADD COLUMN was performed, but the copy of the data is downlevel with respect to the ALTER ADD DBD.
4. Index does not match the data
 - Either the index entry does not exist for the data record, or the index entry points to a missing or bad data record.
5. Data in one table space is inconsistent with related data in another table space
 - Referential integrity; parent and dependent are in different table spaces.
6. Table space definition in the OBD is inconsistent with the data
 - SEGSIZES do not match
 - Table space type is different (simple restored into segmented)
 - Segment anchor in the OBD points to an invalid first segment (segment not allocated).
7. Table space is inconsistent within itself
 - Not all datasets are restored to the same level
 - Broken segment chains
 - Base and overflow records are not consistent.

User Index Spaces

8. Total key length in the index page or entry does not match the key length in the OBD
 - Index data restored with the wrong index or downlevel index.
9. Key length derived from data passed into the Index Manager does not match the length in the index page or entry
 - Data or index restored to inconsistent states.
10. Index OBID in the index does not agree with the OBD
 - OBD corresponding to the OBID from the index cannot be found in the DBD, or the OBD in the DBD is of a different type.
11. Index space definition in the OBD is inconsistent with the index data
 - Inconsistent subpage directory
 - Cannot find the key in the partition high-key directory
 - Keys not found.
12. Index space is inconsistent within itself
 - Not all datasets are restored to the same level
 - Index entry not connected to the root page.
13. Log RBA is unavailable for the associated table space or index space.

Appendix C. SQLSTATE Values—Common Error Codes

The information in this appendix is General-use Programming Interface and Associated Guidance Information, as defined in “Notices” on page 1397.

This appendix contains a summary of the SQLSTATE values that are produced by DB2 as an application server or requester. The SQLSTATE values are based on the SQLSTATE specifications contained in the standards: *ISO/IEC 9075:1992, Database Language SQL* and *ANSI X3.135-1992 Database Language SQL*.

Using SQLSTATE values

SQLSTATE values are returned to the application in the last five bytes of the SQLCA. Each five-character value is a return code that indicates the outcome of the most recently executed SQL statement.

SQLSTATE values are designed so that application programs can test for specific errors or classes of errors. The first character of an SQLSTATE value indicates whether the SQL statement was executed successfully or unsuccessfully (equal to or not equal to zero, respectively).

SQLSTATE values are comprised of a two-character class code value, followed by a three-character subclass code value. Class code values represent classes of successful and unsuccessful execution conditions. An application might define classes beginning with the characters '7' through '9' or 'I' through 'Z' and subclasses for any class beginning with the characters 'I' through 'Z'.

Table 5 identifies the SQLSTATE class codes.

Table 5. SQLSTATE Class Codes

Class Code	Meaning	For subcodes, refer to...
00	Unqualified Successful Completion	Table 6 on page 1364
01	Warning	Table 7 on page 1364
02	No Data	Table 8 on page 1367
07	Dynamic SQL Error	Table 9 on page 1367
08	Connection Exception	Table 10 on page 1367
09	Triggered Action Exception	Table 11 on page 1367
0A	Feature Not Supported	Table 12 on page 1368
0F	Invalid Token	Table 13 on page 1368
21	Cardinality Violation	Table 14 on page 1368
22	Data Exception	Table 15 on page 1368
23	Constraint Violation	Table 16 on page 1369
24	Invalid Cursor State	Table 17 on page 1370
25	Invalid Transaction State	Table 18 on page 1370
26	Invalid SQL Statement Identifier	Table 19 on page 1370
2D	Invalid Transaction Termination	Table 20 on page 1370
34	Invalid Cursor Name	Table 21 on page 1370
35	Invalid Condition Number	Table 22 on page 1371

Table 5. SQLSTATE Class Codes (continued)

Class Code	Meaning	For subcodes, refer to...
36	Cursor Sensitivity Exception	Table 23 on page 1371
38	External Function Exception	Table 24 on page 1371
39	External Function Call Exception	Table 25 on page 1371
3B	Savepoint Exception	Table 26 on page 1371
40	Transaction Rollback	Table 27 on page 1372
42	Syntax Error or Access Rule Violation	Table 28 on page 1372
44	WITH CHECK OPTION Violation	Table 29 on page 1378
46	Java Errors	Table 30 on page 1378
51	Invalid Application State	Table 31 on page 1378
53	Invalid Operand or Inconsistent Specification	Table 32 on page 1379
54	SQL or Product Limit Exceeded	Table 33 on page 1380
55	Object Not in Prerequisite State	Table 34 on page 1381
56	Miscellaneous SQL or Product Error	Table 35 on page 1381
57	Resource Not Available or Operator Intervention	Table 36 on page 1383
58	System Error	Table 37 on page 1384

Table 6. Class Code 00: Unqualified Successful Completion

SQLSTATE Value	Meaning
00000	Execution of the SQL statement was successful and did not result in any type of warning or exception condition.

Table 7. Class Code 01: Warning

SQLSTATE Value	Meaning
01003	Null values were eliminated from the argument of a column function.
01004	The value of a string was truncated when assigned to a host variable.
01005	Insufficient number of entries in an SQLDA.
0100C	One or more ad hoc result sets were returned from the procedure.
0100E	The procedure returned too many result sets.
01503	The number of result columns is larger than the number of host variables provided.
01504	The UPDATE or DELETE statement does not include a WHERE clause.
01505	The statement was not executed because it is unacceptable in this environment.
01506	An adjustment was made to a DATE or TIMESTAMP value to correct an invalid date resulting from an arithmetic operation.
01507	One or more non-zero digits were eliminated from the fractional part of a number used as the operand of a multiply or divide operation.
01514	The tablespace has been placed in the check-pending state.

Table 7. Class Code 01: Warning (continued)

SQLSTATE Value	Meaning
01515	The null value has been assigned to a host variable, because the non-null value of the column is not within the range of the host variable.
01516	An inapplicable WITH GRANT OPTION has been ignored.
01517	A character that could not be converted was replaced with a substitute character.
01518	The definition of the table has been changed to incomplete.
01519	The null value has been assigned to a host variable, because a numeric value is out of range.
01520	The null value has been assigned to a host variable, because the characters cannot be converted.
01521	A specified server-name is undefined but is not needed until the statement is executed or the alias is used.
01522	The local table or view name used in the CREATE ALIAS statement is undefined.
01523	ALL was interpreted to exclude ALTER, INDEX, REFERENCES, and TRIGGER, because these privileges cannot be granted to a remote user.
01524	The result of a column function does not include the null values that were caused by evaluating the arithmetic expression implied by the column of the view.
01525	The number of INSERT values is not the same as the number of columns.
01527	A SET statement references a special register that does not exist at the AS.
01528	WHERE NOT NULL is ignored, because the index key cannot contain null values.
01529	As a result of the DROP INDEX, the UNIQUE constraint is no longer enforced.
01530	Definition change may require a corresponding change on the read-only systems.
01532	An undefined object name was detected.
01533	An undefined column name was detected.
01537	An SQL statement cannot be EXPLAINed, because it references a remote object.
01538	The table cannot be subsequently defined as a dependent, because it has the maximum number of columns.
01539	Connection is successful but only SBCS characters should be used.
01540	A limit key has been truncated to 40 bytes.
01542	Authorization ID does not have the privilege to perform the operation as specified.
01543	A duplicate constraint has been ignored.
01545	An unqualified column name has been interpreted as a correlated reference.
01546	A column of the explanation table is improperly defined.
01548	The authorization ID does not have the privilege to perform the specified operation on the identified object.
01551	A table in a partitioned tablespace is not available, because its partitioned index has not been created.

Table 7. Class Code 01: Warning (continued)

SQLSTATE Value	Meaning
01552	An ambiguous qualified column name was resolved to the first of the duplicate names in the FROM clause.
01553	Isolation level RR conflicts with a tablespace locksize of page.
01554	Decimal multiplication may cause overflow.
01558	A distribution protocol has been violated.
01560	A redundant GRANT has been ignored.
01561	An update to a data capture table was not signaled to the originating subsystem.
01566	The index has been placed in a recover-pending state.
01568	The dynamic SQL statement ends with a semicolon.
01569	The statement will be executed at a DB2 system that does not support character conversion.
01590	Type 2 indexes do not have subpages.
01591	The result of the positioned UPDATE or DELETE may depend on the order of the rows.
01594	Insufficient number of entries in an SQLDA for ALL information (i.e. not enough descriptors to return the distinct name).
01596	Comparison functions were not created for a distinct type based on a long string data type.
01597	Specific and non-specific volume IDs are not allowed in a storage group.
01602	The optimization level has been reduced.
01608	An unsupported value has been replaced.
01612	The part clause of a LOCK TABLE statement is not valid.
01614	There are fewer locators than the number of result sets.
01616	The estimated CPU cost exceeds the resource limit.
01624	The GBPCACHE specification is ignored because the bufferpool does not allow caching.
01625	The schema name appears more than once in the CURRENT PATH.
01628	The user-specified access path hints are invalid. The access path hints are ignored.
01629	User-specified access path hints were used during access path selection.
01635	Statements in the same program have duplicate QUERYNOs.
01638	SUBPAGES greater than one are not supported for Type 1 indexes in a data sharing environment.
01644	DEFINE NO is not applicable for a lob space or data sets using the VCAT option.
01659	A non-atomic statement successfully processed all requested rows with one or more warning conditions.
01663	NOT PADDED clause is ignored for indexes created on auxiliary tables.
01664	Option not specified following the ALTER PARTITION CLAUSE.
01666	The last partition's limit key value is set to the highest or lowest possible value.

Table 7. Class Code 01: Warning (continued)

SQLSTATE Value	Meaning
01668	A rowset FETCH statement returned one or more rows of data, with one or more bind out processing error conditions. Use GET DIAGNOSTICS for more information.
01Hxx	Valid warning SQLSTATEs returned by a user-defined function or external procedure CALL.

Table 8. Class Code 02: No Data

SQLSTATE Value	Meaning
02000	One of the following exceptions occurred: <ul style="list-style-type: none"> • The result of the SELECT INTO statement or the subselect of the INSERT statement was an empty table. • The number of rows identified in the searched UPDATE or DELETE statement was zero. • The position of the cursor referenced in the FETCH statement was after the last row of the result table.
02502	Delete or update hole detected.
02504	FETCH PRIOR ROWSET returned a partial rowset.

Table 9. Class Code 07: Dynamic SQL Error

SQLSTATE Value	Meaning
07001	The number of host variables is not the same as the number of parameter markers.
07002	The call parameter list or control block is invalid.
07003	The statement identified in the EXECUTE statement is a select-statement, or is not in a prepared state.
07005	The statement name of the cursor identifies a prepared statement that cannot be associated with a cursor.
07501	The option specified on PREPARE is not valid.

Table 10. Class Code 08: Connection Exception

SQLSTATE Value	Meaning
08001	The application requester is unable to establish the connection.
08002	The connection already exists.
08003	The connection does not exist.
08004	The application server rejected establishment of the connection.

Table 11. Class Code 09: Triggered Action Exception

SQLSTATE Value	Meaning
09000	A triggered SQL statement failed.

Table 12. Class Code 0A: Feature Not Supported

SQLSTATE Value	Meaning
0A001	The CONNECT statement is invalid, because the process is not in the connectable state.

Table 13. Class Code 0F: Invalid Token

SQLSTATE Value	Meaning
0F001	The locator value does not currently represent any value.

Table 14. Class Code 21: Cardinality Violation

SQLSTATE Value	Meaning
21000	The result of a SELECT INTO is a result table of more than one row, or the result of the subquery of a basic predicate is more than one value.
21501	A multiple-row INSERT into a self-referencing table is invalid.
21502	A multiple-row UPDATE of a primary key is invalid.

Table 15. Class Code 22: Data Exception

SQLSTATE Value	Meaning
22001	Character data, right truncation occurred; for example, an update or insert value is a string that is too long for the column, or a datetime value cannot be assigned to a host variable, because it is too small.
22002	A null value, or the absence of an indicator parameter was detected; for example, the null value cannot be assigned to a host variable, because no indicator variable is specified.
22003	A numeric value is out of range.
22007	An invalid datetime format was detected; that is, an invalid string representation or value was specified.
22008	Datetime field overflow occurred; for example, an arithmetic operation on a date or timestamp has a result that is not within the valid range of dates.
22011	A substring error occurred; for example, an argument of SUBSTR is out of range.
22012	Division by zero is invalid.
22018	The character value for the CAST, DECIMAL, FLOAT, or INTEGER scalar function is invalid.
22019	The LIKE predicate has an invalid escape character.
22021	A character is not in the coded character set.
22023	A parameter or host variable value is invalid.
22024	A NUL-terminated input host variable or parameter did not contain a NUL.
22025	The LIKE predicate string pattern contains an invalid occurrence of an escape character.
22501	The length control field of a variable length string is negative or greater than the maximum.
22503	The string representation of a name is invalid.

Table 15. Class Code 22: Data Exception (continued)

SQLSTATE Value	Meaning
22504	A mixed data value is invalid.
22505	The local date or time length has been increased, but the executing program relies on the old length.
22506	A reference to a datetime special register is invalid, because the TOD clock is malfunctioning or the operating system timezone parameter is out of range.
22508	CURRENT PACKAGESET is blank.
22511	ADT length exceeds maximum column length. The value for a ROWID or reference column is not valid.
22512	A host variable in a predicate is invalid, because its indicator variable is negative.
22522	A CCSID value is not valid at all, not valid for the data type or subtype, or not valid for the encoding scheme.
22525	Partitioning key value is not valid.
22529	A non-atomic statement successfully completed for at least one row, but one or more errors occurred.
22530	A non-atomic statement attempted to process multiple rows of data, but no row was inserted and one or more errors occurred.

Table 16. Class Code 23: Constraint Violation

SQLSTATE Value	Meaning
23502	An insert or update value is null, but the column cannot contain null values.
23503	The insert or update value of a foreign key is invalid.
23504	The update or delete of a parent key is prevented by a NO ACTION update or delete rule.
23505	A violation of the constraint imposed by a unique index or a unique constraint occurred.
23506	A violation of a constraint imposed by an edit or validation procedure occurred.
23507	A violation of a constraint imposed by a field procedure occurred.
23508	A violation of a constraint imposed by the DDL Registration Facility occurred.
23509	The owner of the package has constrained its use to environments which do not include that of the application process.
23510	A violation of a constraint on the use of the command imposed by the RLST table occurred.
23511	A parent row cannot be deleted, because the check constraint restricts the deletion.
23512	The check constraint cannot be added, because the table contains rows that do not satisfy the constraint definition.
23513	The resulting row of the INSERT or UPDATE does not conform to the check constraint definition.
23515	The unique index could not be created or unique constraint added, because the table contains duplicate values of the specified key.
23522	The range of an identity column has been exhausted.
23523	An invalid value has been provided for the SECURITY LABEL column.

Table 17. Class Code 24: Invalid Cursor State

SQLSTATE Value	Meaning
24501	The identified cursor is not open.
24502	The cursor identified in an OPEN statement is already open.
24504	The cursor identified in the UPDATE, DELETE, SET, or GET statement is not positioned on a row.
24506	The statement identified in the PREPARE is the statement of an open cursor.
24512	The result table does not agree with the base table.
24513	FETCH NEXT, PRIOR, CURRENT, or RELATIVE is not allowed, because the cursor position is not known.
24516	A cursor has already been assigned to a result set.
24517	A cursor was left open by an external function.
24518	A cursor is not defined to handle row sets, but a rowset was requested.
24519	A hole was detected on a multiple row FETCH statement, but indicator variables were not provided.
24520	The cursor identified in the UPDATE or DELETE statement is not positioned on a rowset.
24521	A positioned DELETE or UPDATE statement specified a row of a rowset, but the row is not contained within the current rowset.
24522	The fetch orientation is inconsistent with the definition of the cursor and whether rowsets are supported for the cursor.

Table 18. Class Code 25: Invalid Transaction State

SQLSTATE Value	Meaning
25000	An update operation is invalid for the application execution environment.

Table 19. Class Code 26: Invalid SQL Statement Identifier

SQLSTATE Value	Meaning
26501	The statement identified does not exist.

Table 20. Class Code 2D: Invalid Transaction Termination

SQLSTATE Value	Meaning
2D521	SQL COMMIT or ROLLBACK are invalid in the current operating environment.
2D528	Dynamic COMMIT or COMMIT ON RETURN procedure is invalid for the application execution environment
2D529	Dynamic ROLLBACK is invalid for the application execution environment.

Table 21. Class Code 34: Invalid Cursor Name

SQLSTATE Value	Meaning
34000	Cursor name is invalid.

Table 22. Class Code 35: Invalid Condition Number

SQLSTATE Value	Meaning
35000	Condition number is invalid.

Table 23. Class Code 35: Cursor Sensitivity Exception

SQLSTATE Value	Meaning
36001	A SENSITIVE cursor cannot be defined for the specified select-statement.

Table 24. Class Code 38: External Function Exception

SQLSTATE Value	Meaning
38xxx	Valid error SQLSTATEs returned by a user-defined function, external procedure, or trigger.
38001	The external routine is not allowed to execute SQL statements.
38002	The external routine attempted to modify data, but the routine was not defined as MODIFIES SQL DATA.
38003	The statement is not allowed in a routine.
38004	The external routine attempted to read data, but the routine was not defined as READS SQL DATA.
38503	A user-defined function or procedure has abnormally terminated (abend).
38505	An SQL statement is not allowed in user-defined function on a FINAL CALL.
38H01	An MQSeries function failed to initialize.
38H02	MQSeries Application Messaging Interface failed to terminate the session..
38H03	MQSeries Application Messaging Interface failed to terminate the session.
38H04	MQSeries Application Messaging Interface failed in sending a message.
385H05	MQSeries Application Messaging Interface failed to read/receive a message.
38H06	An MQSeries Application Messaging Interface message was truncated.

Table 25. Class Code 39: External Function Call Exception

SQLSTATE Value	Meaning
39001	A user-defined function has returned an invalid SQLSTATE.
39004	A null value is not allowed for an IN or INOUT argument when using PARAMETER STYLE GENERAL.
39501	An output argument value returned from a function or a procedure was too long.

Table 26. Class Code 3B: Savepoint Exception

SQLSTATE Value	Meaning
3B001	The savepoint is not valid.
3B501	A duplicate savepoint name was detected.
3B002	A RELEASE or ROLLBACK TO SAVEPOINT was specified, but a savepoint does not exist.

Table 26. Class Code 3B: Savepoint Exception (continued)

SQLSTATE Value	Meaning
3B003	A SAVEPOINT, RELEASE SAVEPOINT, or ROLLBACK TO SAVEPOINT is not allowed in a trigger, function, or global transaction.

Table 27. Class Code 40: Transaction Rollback

SQLSTATE Value	Meaning
40001	Deadlock or timeout with automatic rollback occurred.

Table 28. Class Code 42: Syntax Error or Access Rule Violation

SQLSTATE Value	Meaning
42501	The authorization ID does not have the privilege to perform the specified operation on the identified object.
42502	The authorization ID does not have the privilege to perform the operation as specified.
42503	The authorization ID specified in SET CURRENT SQLID is not one of the authorization IDs of the application process.
42504	A specified privilege cannot be revoked from a specified authorization-name.
42505	Connection authorization failure occurred.
42506	Owner authorization failure occurred.
42509	SQL statement is not authorized, because of the DYNAMICRULES option.
42510	The authorization ID does not have the privilege to create functions or procedures in the WLM environment.
42512	The SECURITY LABEL is not valid.
42513	The authorization ID does not have the MLS WRITE-DOWN privilege.
42601	A character, token, or clause is invalid or missing.
42602	A character that is invalid in a name has been detected.
42603	An unterminated string constant has been detected.
42604	An invalid numeric or string constant has been detected.
42605	The number of arguments specified for a scalar function is invalid.
42606	An invalid hexadecimal constant has been detected.
42607	An operand of a column function is invalid.
42609	All operands of an operator or predicate are parameter markers.
42610	A parameter marker is not allowed.
42611	The column or argument definition is invalid.
42612	The statement string is an SQL statement that is not acceptable in the context in which it is presented.
42613	Clauses are mutually exclusive.
42614	A duplicate keyword is invalid.
42615	An invalid alternative was detected.
42617	The statement string is blank or empty.
42618	A host variable is not allowed.

Table 28. Class Code 42: Syntax Error or Access Rule Violation (continued)

SQLSTATE Value	Meaning
42620	Read-only SCROLL was specified with the UPDATE clause.
42621	The check constraint is invalid.
42622	A name or label is too long.
42625	A CASE expression is invalid.
42626	A column specification is not allowed for a CREATE INDEX that is built on an auxiliary table.
42701	A duplicate column name in an INSERT or UPDATE statement was detected.
42702	A column reference is ambiguous, because of duplicate names.
42703	An undefined column or parameter name was detected.
42704	An undefined object or constraint name was detected.
42705	An undefined server-name was detected.
42707	A column name in ORDER BY does not identify a column of the result table.
42708	The locale specified in a SET LOCALE or locale sensitive function was not found.
42709	A duplicate column name in a PRIMARY, UNIQUE, or FOREIGN KEY clause was detected.
42710	A duplicate object or constraint name was detected.
42711	A duplicate column name was detected in the object definition or ALTER TABLE statement.
42712	A duplicate table designator was detected in the FROM clause. or REFERENCING clause of a CREATE TRIGGER statement.
42713	A duplicate object was detected in a list or is the same as an existing object.
42714	A host variable can be defined only once.
42718	The local server name is not defined.
42721	The special register name is unknown at the server.
42723	A function with the same signature already exists in the schema.
42724	Unable to access an external program used for a user-defined function or a procedure.
42725	A function was referenced directly (not by either signature or by specific instance name), but there is more than one specific instance of that function.
42726	Duplicate names for common table expressions were detected.
42734	A duplicate parameter-name was detected.
42801	Isolation level UR is invalid, because the result table is not read-only.
42802	The number of insert or update values is not the same as the number of columns.
42803	A column reference in the SELECT or HAVING clause is invalid, because it is not a grouping column; or a column reference in the GROUP BY clause is invalid.
42804	The result expressions in a CASE expression are not compatible.
42805	An integer in the ORDER BY clause does not identify a column of the result table.
42806	A value cannot be assigned to a host variable, because the data types are not compatible.

Table 28. Class Code 42: Syntax Error or Access Rule Violation (continued)

SQLSTATE Value	Meaning
42807	The INSERT, UPDATE, or DELETE is not permitted on this object.
42808	A column identified in the INSERT or UPDATE statement is not updateable.
42809	The identified object is not the type of object to which the statement applies.
42810	A view is identified in a FOREIGN KEY clause.
42811	The number of columns specified is not the same as the number of columns in the SELECT clause.
42813	WITH CHECK OPTION cannot be used for the specified view.
42815	The data type, length, scale, value, or CCSID is invalid.
42816	A datetime value or duration in an expression is invalid.
42818	The operands of an operator or function are not compatible.
42819	An operand of an arithmetic operation or an operand of a function that requires a number is not a number.
42820	A numeric constant is too long, or it has a value that is not within the range of its data type.
42821	A data type for an assignment to a column is not compatible with the column data type.
42822	An expression in the ORDER BY clause or GROUP BY clause is not valid.
42823	The SELECT clause of a subquery specifies multiple columns.
42824	An operand of LIKE is not a string, or the first operand is not a column.
42825	The rows of UNION, INTERSECT, EXCEPT, or VALUES do not have compatible columns.
42826	The rows of UNION, INTERSECT, EXCEPT, or VALUES do not have the same number of columns.
42827	The table identified in the UPDATE or DELETE is not the same table designated by the cursor.
42828	The table designated by the cursor of the UPDATE or DELETE statement cannot be modified, or the cursor is read-only.
42829	FOR UPDATE OF is invalid, because the result table designated by the cursor cannot be modified.
42830	The foreign key does not conform to the description of the parent key.
42831	A column of a primary or unique key cannot allow null values.
42832	The operation is not allowed on system objects.
42834	SET NULL cannot be specified, because the foreign key does not allow null values.
42835	Cyclic references cannot be specified between named derived tables.
42836	The specification of a recursive, named derived table is invalid.
42837	The column cannot be altered, because its attributes are not compatible with the current column attributes.
42842	A column definition is invalid, because a specified option is inconsistent with the column description.
42845	An invalid use of a NOT DETERMINISTIC or EXTERNAL ACTION function was detected.
42846	Cast from source type to target type is not supported.

Table 28. Class Code 42: Syntax Error or Access Rule Violation (continued)

SQLSTATE Value	Meaning
42849	The specified option is not supported for external functions.
42852	The privileges specified in GRANT or REVOKE are invalid or inconsistent. (For example, GRANT ALTER on a view.)
42855	The assignment of the LOB to this host variable is not allowed. The target host variable for all fetches of this LOB value for this cursor must be a locator or LOB variable.
42856	The alter of a CCSID to the specified CCSID is not valid.
42866	The data type in either the RETURNS clause or the CAST FROM clause in the CREATE FUNCTION statement is not appropriate for the data type returned from the sourced function or RETURN statement in the function body.
42872	FETCH statement clauses are incompatible with the cursor definition.
42873	An invalid number of rows was specified in a multiple-row FETCH or multiple-row INSERT.
42877	The column name cannot be qualified.
42878	An invalid function or procedure name was used with the EXTERNAL keyword.
42879	The data type of one or more input parameters in the CREATE FUNCTION statement is not appropriate for the corresponding data type in the source function.
42880	The CAST TO and CAST FROM data types are incompatible, or would always result in truncation of a fixed string.
42882	The specific instance name qualifier is not equal to the function name qualifier.
42883	No function was found with a matching signature.
42884	No function or procedure was found with the specified name and compatible arguments.
42885	The number of input parameters specified on a CREATE FUNCTION statement does not match the number provided by the function named in the SOURCE clause.
42886	The IN, OUT, or INOUT parameter attributes do not match.
42887	The function is not valid in the context where it occurs.
42888	The table does not have a primary key.
42889	The table already has a primary key.
42890	A column list was specified in the references clause, but the identified parent table does not have a unique constraint with the specified column names.
42893	The object or constraint cannot be dropped or authorities cannot be revoked from the object, because other objects are dependent on it.
42894	The DEFAULT value is invalid.
42895	For static SQL, an input host variable cannot be used, because its data type is not compatible with the parameter of a procedure or user-defined function.
42898	An invalid correlated reference or transition table was detected in a trigger.
42899	Correlated references and column names are not allowed for triggered actions with the FOR EACH STATEMENT clause.
428B3	An invalid SQLSTATE was specified on RAISE_ERROR.
428B4	The part clause of a LOCK TABLE statement is not valid.

Table 28. Class Code 42: Syntax Error or Access Rule Violation (continued)

SQLSTATE Value	Meaning
428C1	Only one ROWID column can be specified for a table.
428C4	The number of elements on each side of the predicate operator is not the same.
428C7	A ROWID or reference column specification is not valid.
428C9	A ROWID column cannot be specified as the target column of an INSERT or UPDATE.
428D2	AS LOCATOR cannot be specified for a non-LOB parameter.
428D3	GENERATED was specified with a data type that is not a ROWID or a distinct type based on a ROWID.
428EC	The fullselect specified for the materialized query table is not valid.
428EK	The qualifier for a declared global temporary table name or an index on a declared global temporary table must be SESSION.
428EW	The table cannot be converted to or from a materialized query table.
428F4	The SENSITIVITY specified on FETCH is not allowed for the cursor.
428F5	The invocation of a function is ambiguous.
428F9	A sequence expression cannot be specified in this context.
428FA	The scale of the decimal number must be zero.
428FB	Sequence-name must not be a sequence generated by the system for an identity column.
428FC	The length of the encryption password is not valid.
428FE	The data is not a result of the ENCRYPT function.
428FL	An INSERT statement is not allowed in the context in which it was specified.
428FM	An INSERT statement within a SELECT specified a view which is not a symmetric view.
428FR	A column cannot be altered as specified.
428FS	A column cannot be added to an index.
428FT	The table is not compatible with the specified data partitioning operation.
428FW	A column cannot be added, dropped, or altered in a materialized query table.
428GB	A character could not be converted and substitution characters are not allowed.
428GC	An invalid string length unit was specified for a function.
42901	A column function does not include a column name.
42902	The object of the INSERT, UPDATE, or DELETE is also identified (possibly implicitly through a view) in a FROM clause.
42903	A WHERE, VALUES, GROUP BY, HAVING, or SET clause includes an invalid reference, such as a column or OLAP function.
42905	DISTINCT is specified more than once in a subselect.
42906	A column function in a subquery of a HAVING clause includes an expression that applies an operator to a correlated reference.
42907	The string is too long.
42908	The statement does not include a required column list.
42909	CREATE VIEW includes an operator or operand that is not valid for views. For example, UNION or UNION ALL.

Table 28. Class Code 42: Syntax Error or Access Rule Violation (continued)

SQLSTATE Value	Meaning
42911	A decimal divide operation is invalid, because the result would have a negative scale.
42912	A column cannot be updated, because it is not identified in the UPDATE clause of the select-statement of the cursor.
42914	The DELETE is invalid, because a table referenced in a subquery can be affected by the operation.
42915	An invalid referential constraint has been detected.
42917	The object cannot be explicitly dropped.
42918	A user-defined data type cannot be created with a system-defined data type name (for example, INTEGER).
42920	A GROUP BY or HAVING clause is implicitly or explicitly specified in a SELECT INTO or a subquery of a basic predicate.
42924	An alias resolved to another alias rather than a table or view at the remote location.
42925	Recursive named derived tables cannot specify SELECT DISTINCT and must specify UNION ALL.
42927	The function cannot be altered to NOT DETERMINISTIC or EXTERNAL ACTION because it is referenced by one or more existing views.
42932	The program preparation assumptions are incorrect.
42939	The object cannot be created, because the specified identifier is reserved for system use.
42945	ALTER CCSID is not allowed on a tablespace or database that contains a view.
42961	The server name specified does not match the current server.
42962	A long column, LOB column, structured type column or datalink column cannot be used in an index, a key, or a constraint.
42963	Invalid specification of a security label column.
42969	The package was not created and the current unit of work was rolled back, because of internal limitations or an invalid section number.
42972	An expression in a join-condition references columns in more than one of the operand tables.
42986	The source table in a RENAME TABLE statement is referenced in a view, trigger, or constraint.
42987	The statement is not allowed in a trigger.
42988	The operation is not allowed with mixed ASCII data.
42993	The column, as defined, is too large to be logged.
42995	The requested function does not apply to global temporary tables.
42997	Capability is not supported by this version of the DB2 application requester, DB2 application server, or the combination of the two.
429B1	A stored procedure specifying COMMIT ON RETURN cannot be the target of a nested CALL statement.
429BI	The condition area is full and cannot handle more errors for a NOT ATOMIC statement.
429BN	A CREATE statement cannot be processed when the value of CURRENT SCHEMA differs from CURRENT SQLID.

Table 28. Class Code 42: Syntax Error or Access Rule Violation (continued)

SQLSTATE Value	Meaning
429BQ	The specified alter of the data type or attribute is not allowed.

Table 29. Class Code 44: WITH CHECK OPTION Violation

SQLSTATE Value	Meaning
44000	The INSERT or UPDATE is not allowed, because a resulting row does not satisfy the view definition.

Table 30. Class Code 44: Java Errors

SQLSTATE Value	Meaning
46002	The jar name specified on the install, replace, or remove of a Java procedure is not valid.
46003	The jar file cannot be removed, a class is in use by a procedure.
46007	A Java function has a Java method with an invalid signature.
46008	A Java function could not map to a single Java method.
46103	A Java routine encountered a ClassNotFoundException.
46501	The install or remove jar procedure specified the use of a deployment descriptor.
46502	A user-defined procedure has returned a DYNAMIC RESULT SET of an invalid class. The parameter is not a DB2 result set.

Table 31. Class Code 51: Invalid Application State

SQLSTATE Value	Meaning
51002	The package corresponding to an SQL statement execution request was not found.
51003	Consistency tokens do not match.
51004	An address in the SQLDA is invalid.
51005	The previous system error has disabled this function.
51006	A valid connection has not been established.
51015	An attempt was made to execute a section that was found to be in error at bind time.
51021	SQL statements cannot be executed until the application process executes a rollback operation.
51024	SQL statements cannot be executed until the application process executes a rollback operation.
51030	The procedure referenced in a DESCRIBE PROCEDURE statement or an ALLOCATE CURSOR statement has not yet been called within the application process.
51032	A valid ASCII CCSID has not yet been specified for this DB2 UDB for OS/390 subsystem.
51033	The operation is not allowed because it operates on a result set that was not created by the current server.

Table 31. Class Code 51: Invalid Application State (continued)

SQLSTATE Value	Meaning
51034	The function contains an insert, update, or delete which is not valid in the context in which it is invoked.
51035	A PREVIOUS VALUE expression cannot be used because a value has not been generated for the sequence yet in this session.
51036	An implicit connect to a remote server is not allowed because a savepoint is outstanding.
51039	The ENCRYPTION PASSWORD value is not set.

Table 32. Class Code 53: Invalid Operand or Inconsistent Specification

SQLSTATE Value	Meaning
53001	A clause is invalid, because the tablespace is a workfile.
53004	DSNDB07 is the implicit workfile database.
53014	The specified OBID is invalid.
53022	Host variable or parameter is not allowed.
53035	Key limits must be specified in the CREATE INDEX statement.
53036	The number of PART specifications is not the same as the number of partitions.
53037	A partitioned index cannot be created on a table in a non-partitioned tablespace.
53038	The number of key limit values is zero or greater than the number of columns in the key.
53039	The PART clause of the ALTER statement is omitted or invalid.
53040	The bufferpool cannot be changed to BP32K.
53041	BP32K cannot be used for an index.
53043	Columns with different field procedures cannot be compared.
53044	The columns have a field procedure, but the field types are not compatible.
53045	The data type of the key limit constant is not the same as the data type of the column.
53046	The index space is not valid.
53088	LOCKMAX is inconsistent with the specified LOCKSIZE.
53089	The number of host variable parameters for a stored procedure is not equal to the number of expected host variable parameters.
53090	Both ASCII and EBCDIC data cannot be referenced in the same SQL statement.
53091	The encoding scheme specified is not the same as the encoding scheme currently in use for the containing tablespace.
53092	Type 1 index cannot be created for a table using the ASCII encoding scheme.
53093	The FOR ASCII clause is not supported for this database or tablespace.
53094	The PLAN_TABLE cannot be created with the FOR ASCII clause.
53095	A system tablespace cannot be created with an explicit ASCII or EBCDIC clause.

Table 32. Class Code 53: Invalid Operand or Inconsistent Specification (continued)

SQLSTATE Value	Meaning
53096	The PART clause was specified on CREATE AUXILIARY TABLE, but the base table is not partitioned.
53097	LOBs cannot be specified as parameters when the NO WLM ENVIRONMENT is specified.
53098	The auxiliary table cannot be created because a column was specified that is not a LOB column.
53099	A WLM ENVIRONMENT name must be specified on the CREATE FUNCTION statement.
530A1	An ALTER TABLE statement specified FLOAT as the new data type for a column, but there is an existing index or constraint that restricts the use of FLOAT.
530A2	The VALUES clause is not allowed on the specified index.

Table 33. Class Code 54: SQL or Product Limit Exceeded

SQLSTATE Value	Meaning
54001	The statement is too long or too complex.
54002	A string constant is too long.
54004	The statement has too many table names or too many items in a SELECT or INSERT list.
54005	The sort key is too long, or has too many columns.
54006	The result of concatenation is too long.
54008	The key is too long, a column of the key is too long, or the key many columns.
54010	The record length of the table is too long.
54011	Too many columns were specified for a table or view.
54012	The FIELDPROC literal list is too long.
54021	Too many constraints, or the size of the constraint is too large.
54024	The check constraint is too long.
54025	The table description exceeds the maximum size of the object descriptor.
54027	The catalog has the maximum number of user-defined indexes.
54035	An internal object limit exceeded.
54038	Maximum depth of cascaded triggers exceeded.
54041	Only 32767 OBIDs are allowed.
54042	Only one index is allowed on an auxiliary table.
54051	Value specified on FETCH ABSOLUTE or RELATIVE is invalid.
54054	The combination of the number of table space partitions and the corresponding length of the partitioning limit key is too large.
54055	The maximum number of versions has been reached for a table or index.

Table 34. Class Code 55: Object Not in Prerequisite State

SQLSTATE Value	Meaning
55002	The explanation table is not defined properly.
55003	The DDL registration table is not defined properly.
55004	The database cannot be accessed, because it is no longer a shared database.
55006	The object cannot be dropped, because it is currently in use by the same application process.
55011	The operation is disallowed, because the workfile database is not in the stopped state.
55012	A clustering index already exists on the table.
55014	The table does not have an index to enforce the uniqueness of the primary key.
55015	The ALTER statement cannot be executed, because the pageset is not in the stopped state.
55016	The ALTER statement is invalid, because the pageset has user-managed data sets.
55017	The table cannot be created in the tablespace, because it already contains a table.
55020	A work file database is already defined for the member.
55023	An error occurred calling a procedure.
55030	A package specified in a remote BIND REPLACE operation must not have a system list.
55035	The table cannot be dropped, because it is protected.
55048	Encrypted data cannot be encrypted.

Table 35. Class Code 56: Miscellaneous SQL or Product Error

SQLSTATE Value	Meaning
56010	The subtype of a string variable is not the same as the subtype at bind time, and the difference cannot be resolved by character conversion.
56016	The partitioning keys are not specified in ascending or descending order.
56018	A column cannot be added to the table, because it has an edit procedure.
56023	An invalid reference to a remote object has been detected.
56025	An invalid use of AT ALL LOCATIONS in GRANT or REVOKE has been detected.
56027	A nullable column of a foreign key with a delete rule of SET NULL cannot be part of the key of a partitioned index.
56031	The clause or scalar function is invalid, because mixed and DBCS data are not supported on this system.
56036	Specific and non-specific volume IDs are not allowed in a storage group.
56038	The requested feature is not supported in this environment.
56040	CURRENT SQLID cannot be used in a statement that references remote objects.
56045	The application must issue a rollback operation to back out the change that was made at the read-only application server.
56052	The remote requester tried to bind, rebind, or free a trigger package.

Table 35. Class Code 56: Miscellaneous SQL or Product Error (continued)

SQLSTATE Value	Meaning
56053	The parent of a table in a read-only shared database must also be a table in a read-only shared database.
56054	User-defined datasets for objects in a shared database must be defined with SHAREOPTIONS(1,3).
56055	The database is defined as SHARE READ, but the tablespace or indexspace has not been defined on the owning system.
56056	The description of an object in a SHARE READ database must be consistent with its description in the OWNER system.
56057	A database cannot be altered from SHARE READ to SHARE OWNER.
56059	An error occurred when binding a triggered SQL statement.
56060	An LE function failed.
56062	A distributed operation is invalid, because the unit of work was started before DDF.
56064	The bind operation is disallowed, because the program depends on functions of a release from which fallback has occurred.
56065	The bind operation is disallowed, because the DBRM has been modified or was created for a different release.
56066	The rebind operation is disallowed, because the plan or package depends on functions of a release from which fallback has occurred.
56067	The rebind operation is disallowed, because the value of SYSPACKAGE.IBMREQD is invalid.
56072	Execution failed due to the function not supported by a downlevel server that will not affect the execution of subsequent SQL statements.
56073	Execution failed due to the function not supported by a downlevel server that will affect the execution of subsequent SQL statements.
56080	The data type is not allowed in DB2 private protocol processing.
56082	The statement cannot be executed, because it identifies a DB2 system that does not support character conversion.
56084	The data type is not supported.
56088	ALTER FUNCTION failed because functions cannot modify data when they are processed in parallel.
56089	Specified option requires type 2 indexes.
56090	The type of the index cannot be changed.
56095	A bind option is invalid.
56096	Bind options are incompatible.
560A1	The tablespace name is not valid.
560A2	A LOB table and its associated base table space must be in the same database.
560A3	The table is not compatible with the database.
560A4	The operation is not allowed on an auxiliary table.
560A5	An auxiliary table already exists for the specified column or partition.
560A6	A table cannot have a LOB column unless it also has a ROWID column.
560A7	GBPCACHE NONE cannot be specified for a tablespace or index in GRECP.

Table 35. Class Code 56: Miscellaneous SQL or Product Error (continued)

SQLSTATE Value	Meaning
560A8	An 8K or 16K bufferpool pagesize is invalid for a WORKFILE object.
560A9	An unsupported option was specified.
560AD	A view name was specified after LIKE in addition to the INCLUDING IDENTITY COLUMN ATTRIBUTES clause.
560AE	A view was specified for LIKE, but it includes a ROWID column.
560B1	Procedure failed because a result set was scrollable but the cursor was not positioned before the first row.
560B2	Open failed because the cursor is scrollable but the client does not support scrollable cursors.
560B3	Procedure failed because one or more result sets returned by the procedure are scrollable but the client does not support scrollable cursors.
560B5	Local special register is not valid as used.
560B8	The SQL statement cannot be executed because it was precompiled at a level that is incompatible with the current value of the ENCODING bind option or special register.
560B9	Hexadecimal constant GX is not allowed.
560BF	The encryption and decryption facility has not been installed.
560C5	The package must be rebound to be successfully executed.
560C6	A referential constraint cannot modify a row that was modified by an SQL data change statement within a fullselect.
560C7	ALTER VIEW failed.

Table 36. Class Code 57: Resource Not Available or Operator Intervention

SQLSTATE Value	Meaning
57001	The table is unavailable, because it does not have a primary index.
57002	GRANT and REVOKE are invalid, because authorization has been disabled.
57003	The specified bufferpool has not been activated.
57004	The table is unavailable, because it lacks a partitioned index.
57005	The statement cannot be executed, because a utility or a governor time limit was exceeded.
57006	The object cannot be created, because a DROP or CREATE is pending.
57007	The object cannot be used, because a DROP or ALTER is pending.
57008	The date or time local format exit has not been installed.
57010	A field procedure could not be loaded.
57011	Virtual storage or database resource is not available.
57012	A non-database resource is not available. This will not affect the successful execution of subsequent statements.
57013	A non-database resource is not available. This will affect the successful execution of subsequent statements.
57014	Processing was canceled as requested.
57015	Connection to the local DB2 not established.
57017	Character conversion is not defined.

Table 36. Class Code 57: Resource Not Available or Operator Intervention (continued)

SQLSTATE Value	Meaning
57018	A DDL registration table or its unique index does not exist.
57023	The DDL statement cannot be executed, because a DROP is pending of a DDL registration table.
57033	Deadlock or timeout occurred without automatic rollback.
57051	The estimated CPU cost exceeds the resource limit.
57053	A table is not available in a routine or trigger because of violated nested SQL statement rules.
57054	A table is not available until the auxiliary tables and indexes for its externally stored columns have been created.
57057	The SQL statement cannot be executed due to a prior condition in a DRDA chain of SQL statements.

Table 37. Class Code 58: System Error

SQLSTATE Value	Meaning
58001	The database cannot be created, because the assigned DBID is a duplicate.
58002	An exit has returned an error or invalid data.
58003	An invalid section number was detected.
58004	A system error (that does not necessarily preclude the successful execution of subsequent SQL statements) occurred.
58005	A system error (that prevents the successful execution of subsequent SQL statements) occurred.
58006	A system error occurred during connection.
58008	Execution failed due to a distribution protocol error that will not affect the successful execution of subsequent DDM commands or SQL statements.
58009	Execution failed due to a distribution protocol error that caused deallocation of the conversation.
58010	Execution failed due to a distribution protocol error that will affect the successful execution of subsequent DDM commands or SQL statements.
58011	The DDM command is invalid while the bind process is in progress.
58012	The bind process with the specified package name and consistency token is not active.
58013	The SQLCODE is inconsistent with the reply message.
58014	The DDM command is not supported.
58015	The DDM object is not supported.
58016	The DDM parameter is not supported.
58017	The DDM parameter value is not supported.
58018	The DDM reply message is not supported.
58026	The number of host variables in the statement is not equal to the number of host variables in SQLSTTVRB.

Appendix D. New, Changed, and Deleted Messages and Codes

This appendix lists new, changed, and deleted messages and codes to support DB2 Version 8, as follows:

- “New messages and codes” lists new SQL return codes, messages, and reason codes.
- “Changed messages and codes” on page 1390 lists changed SQL return codes, messages, reason codes, and SNA codes.
- “Deleted messages and codes” on page 1395 lists deleted SQL return codes and messages.

New messages and codes

+252
+347
+20141
+20237
+20245
+20270
+20272
-111
-227
-230
-242
-246
-247
-248
-249
-254
-270
-270
-336
-342
-345
-348
-353
-393
-575
-589
-845
-952
-989
-1403
-4302
-4700
-4701
-4702
-5011
-20019
-20058
-20093
-20142
-20143

-20144
-20146
-20147
-20163
-20164
-20166
-20174
-20177
-20180
-20181
-20182
-20183
-20185
-20186
-20200
-20201
-20210
-20223
-20227
-20232
-20233
-20234
-20235
-20240
-20248
-20249
-20252
-20264
-20265
-20266
-20281
-20286
-20289
-30005
-30025
-30106
00C12207
00C12221
00C12850
00C20111
00C20112
00C900CF
00C90614
00D10201
00D30210
00D31203
00D34445
00D34446
00D34447
00D34448
00D34449
00D3444A
00D3444C
00D3444D
00D35E63
00D70009

00D70046
00D90014
00E400D0
00E400E0
00E40196
00E40197
00E40355
00E50003
00E50033
00E7009A
00E70082
00E73006
00E79000
00E79010
00E8005A
00F300A1
00F300A2
00F300A3
00F300A4
DSN1191I
DSN1192I
DSN1193I
DSN1194I
DSN1195I
DSN1196I
DSN1197I
DSN1198I
DSN1939I
DSN9038I
DSNA301I
DSNA302I
DSNA303I
DSNA304I
DSNA305I
DSNA306I
DSNA307I
DSNA308I
DSNA309I
DSNA310I
DSNA311I
DSNA312I
DSNA313I
DSNA314I
DSNA315I
DSNA316I
DSNA317I
DSNA318I
DSNA319I
DSNB260I
DSNB357I
DSNB539I
DSNB610I
DSNB802I
DSNB815I
DSNB816I
DSNE136I

DSNG005I
DSNG006I
DSNH091I
DSNH330I
DSNH332I
DSNH527I
DSNH902I
DSNH4700I
DSNH4701I
DSNH4702I
DSNH5011I
DSNI028I
DSNI029I
DSNI041I
DSNJ016E
DSNJ017E
DSNJ128I
DSNJ155I
DSNJ156I
DSNJ155I
DSNJ156I
DSNJ252I
DSNJ260I
DSNJ261I
DSNJ266I
DSNJ439I
DSNJ440I
DSNJ441I
DSNJ708I
DSNJ990i
DSNQ001I
DSNQ002I
DSNQ003I
DSNQ004I
DSNQ010I
DSNQ011I
DSNQ012I
DSNQ020I
DSNQ021I
DSNQ030I
DSNQ040I
DSNQ060I
DSNQ070I
DSNQ071I
DSNQ072I
DSNQ073I
DSNQ074I
DSNQ075I
DSNQ081I
DSNQ082I
DSNR045I
DSNR047I
DSNR048I
DSNR050I
DSNR051I
DSNR052I

DSNR053I
DSNT386I
DSNT387I
DSNT520I
DSNT527I
DSNT528I
DSNT532I
DSNT550I
DSNT551I
DSNT552I
DSNT815I
DSNT816I
DSNT818I
DSNU033I
DSNU083I
DSNU237I
DSNU283I
DSNU284I
DSNU326I
DSNU334I
DSNU430I
DSNU431I
DSNU432I
DSNU556I
DSNU631I
DSNU688I
DSNU689I
DSNU790I
DSNU807I
DSNU932I
DSNU1001I
DSNU1011I
DSNU1045I
DSNU1050I
DSNU1126I
DSNU1127I
DSNU1128I
DSNU1129I
DSNU1130I
DSNU1141I
DSNU1142I
DSNU1143I
DSNU1144I
DSNU1145I
DSNU1178I
DSNU1238I
DSNU1254I
DSNU1310I
DSNU1510I
DSNU1511I
DSNU1600I
DSNU1601I
DSNU1602I
DSNU1603I
DSNU1604I
DSNU1605I

DSNU1606I
DSNU1607I
DSNU1608I
DSNU1609I
DSNU1610I
DSNU1611I
DSNU1612I
DSNU1614I
DSNU1616I
DSNU1618I
DSNU1619I
DSNU1621I
DSNU1623I
DSNU1624I
DSNU1626I
DSNU1627I
DSNU1628I
DSNU1629I
DSNU1631I
DSNU1632I
DSNU1633I
DSNU1634I
DSNV440I
DSNV441I
DSNY011I
DSNY012I
DSNZ015I
DSN1939I
DSN9038I
DXR167E
DXR175E
DXR176I
DXR177I
DXR183I

Changed messages and codes

These messages and codes were updated.

This list does not include messages or codes with the following types of changes:

- Book references
- Editorial
 - +222
 - +231
 - +585
 - 102
 - 107
 - 109
 - 110
 - 112
 - 119
 - 120
 - 132
 - 133
 - 134
 - 136

-142
-150
-153
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-159
-187
-189
-190
-205
-214
-225
-228
-240
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-244
-305
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-331
-332
-333
-350
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-372
-373
-390
-397
-408
-423
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-476
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-497
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-532
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-577
-585
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-30072
-30082
00C200E8
00C20257
00C8901x
00C90611
00D10015
00D300F8
00D31055
00E3000A
00E30700
00E40206
00E40207
00E40208
00E40209
00E40210
00E40213
00E40214
00E40215
00E40218
00E72058
00E79002
00E79109
00E80058
00F30106
DSN3201I
DSN7101I
DSN7513I
DSNB226I

DSNB250E
DSNB306I
DSNB332I
DSNB333I
DSNB402I
DSNB404I
DSNB406I
DSNB411I
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DSNB508I
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DSNB540I
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DSNB789I
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DSNB800I
DSNE926E
DSNE955I
DSNH102I
DSNH107I
DSNH110I
DSNH5036I
DSNI005I
DSNI006I
DSNI021I
DSNI022I
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DSNJ103I
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DSNU570I
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DSNU688I
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DSNU785I
DSNU787I
DSNU1038I
DSNU1042I
DSNU1043I
DSNU1141I
DSNU1401I
DSNU1402I
DSNU1404I
DSNV404I
DSNW130I
DSNX210I
DSNX900E
DSNX986I
DSNX987I
DSNY009I
DSN1946I
DSN7104I
DXR100I
DXR116E
DXR121I
DXR167E
DXR176I
DXR177I

Deleted messages and codes

These messages and codes were deleted:

-127
-223
00C200CD
00C200EE
DSNB230I
DSNB231I
DSNB403I
DSNB405I
DSNB430I
DSNB431I
DSNB454I
DSNB503I
DSNB505I
DSNB509I
DSNB513I
DSNB514I
DSNB515I
DSNB518I
DSNB523I
DSNB525I
DSNB528I

DSNB535I
DSNB537I
DSNB541I
DSNB606I
DSNB607I
DSNB608I
DSNB610I
DSNB611I
DSNB779I
DSNT441I
DSNU1145I
DXR159I
DXR160I
DXR161I
DXR163I
DXR178I
DXR181I

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Programming interface information

This information is intended to help you interpret messages issued by DB2 Universal Database for z/OS (DB2 UDB for z/OS).

This information also documents General-use Programming Interface and Associated Guidance Information provided by DB2 UDB for z/OS.

General-use programming interfaces allow the customer to write programs that obtain the services of DB2 UDB for z/OS.

General-use Programming Interface and Associated Guidance Information is identified where it occurs by an introductory statement to a chapter or section.

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CICS/MVS	MVS/DFP
COBOL/370	MVS/ESA
C/370	MVS/XA
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DataHub	Open Edition
DataPropagator	OS/2
DB2	OS/390
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DFSMSdss	RACF
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Glossary

The following terms and abbreviations are defined as they are used in the DB2 library.

A

abend. Abnormal end of task.

abend reason code. A 4-byte hexadecimal code that uniquely identifies a problem with DB2. A complete list of DB2 abend reason codes and their explanations is contained in *DB2 Messages and Codes*.

abnormal end of task (abend). Termination of a task, job, or subsystem because of an error condition that recovery facilities cannot resolve during execution.

access method services. The facility that is used to define and reproduce VSAM key-sequenced data sets.

access path. The path that is used to locate data that is specified in SQL statements. An access path can be indexed or sequential.

active log. The portion of the DB2 log to which log records are written as they are generated. The active log always contains the most recent log records, whereas the archive log holds those records that are older and no longer fit on the active log.

active member state. A state of a member of a data sharing group. The cross-system coupling facility identifies each active member with a group and associates the member with a particular task, address space, and z/OS system. A member that is not active has either a failed member state or a quiesced member state.

address space. A range of virtual storage pages that is identified by a number (ASID) and a collection of segment and page tables that map the virtual pages to real pages of the computer's memory.

address space connection. The result of connecting an allied address space to DB2. Each address space that contains a task that is connected to DB2 has exactly one address space connection, even though more than one task control block (TCB) can be present. See also *allied address space* and *task control block*.

address space identifier (ASID). A unique system-assigned identifier for an address space.

administrative authority. A set of related privileges that DB2 defines. When you grant one of the administrative authorities to a person's ID, the person has all of the privileges that are associated with that administrative authority.

after trigger. A trigger that is defined with the trigger activation time AFTER.

agent. As used in DB2, the structure that associates all processes that are involved in a DB2 unit of work. An *allied agent* is generally synonymous with an *allied thread*. *System agents* are units of work that process tasks that are independent of the allied agent, such as prefetch processing, deferred writes, and service tasks.

alias. An alternative name that can be used in SQL statements to refer to a table or view in the same or a remote DB2 subsystem.

allied address space. An area of storage that is external to DB2 and that is connected to DB2. An allied address space is capable of requesting DB2 services.

allied thread. A thread that originates at the local DB2 subsystem and that can access data at a remote DB2 subsystem.

allocated cursor. A cursor that is defined for stored procedure result sets by using the SQL ALLOCATE CURSOR statement.

already verified. An LU 6.2 security option that allows DB2 to provide the user's verified authorization ID when allocating a conversation. With this option, the user is not validated by the partner DB2 subsystem.

ambiguous cursor. A database cursor that is in a plan or package that contains either PREPARE or EXECUTE IMMEDIATE SQL statements, and for which the following statements are true: the cursor is not defined with the FOR READ ONLY clause or the FOR UPDATE OF clause; the cursor is not defined on a read-only result table; the cursor is not the target of a WHERE CURRENT clause on an SQL UPDATE or DELETE statement.

American National Standards Institute (ANSI). An organization consisting of producers, consumers, and general interest groups, that establishes the procedures by which accredited organizations create and maintain voluntary industry standards in the United States.

ANSI. American National Standards Institute.

APAR. Authorized program analysis report.

APAR fix corrective service. A temporary correction of an IBM software defect. The correction is temporary, because it is usually replaced at a later date by a more permanent correction, such as a program temporary fix (PTF).

APF. Authorized program facility.

API. Application programming interface.

APPL • batch message processing program

APPL. A VTAM® network definition statement that is used to define DB2 to VTAM as an application program that uses SNA LU 6.2 protocols.

application. A program or set of programs that performs a task; for example, a payroll application.

application-directed connection. A connection that an application manages using the SQL CONNECT statement.

application plan. The control structure that is produced during the bind process. DB2 uses the application plan to process SQL statements that it encounters during statement execution.

application process. The unit to which resources and locks are allocated. An application process involves the execution of one or more programs.

application programming interface (API). A functional interface that is supplied by the operating system or by a separately orderable licensed program that allows an application program that is written in a high-level language to use specific data or functions of the operating system or licensed program.

application requester. The component on a remote system that generates DRDA® requests for data on behalf of an application. An application requester accesses a DB2 database server using the DRDA application-directed protocol.

application server. The target of a request from a remote application. In the DB2 environment, the application server function is provided by the distributed data facility and is used to access DB2 data from remote applications.

archive log. The portion of the DB2 log that contains log records that have been copied from the active log.

ASCII. An encoding scheme that is used to represent strings in many environments, typically on PCs and workstations. Contrast with *EBCDIC* and *Unicode*.

ASID. Address space identifier.

attachment facility. An interface between DB2 and TSO, IMS, CICS, or batch address spaces. An attachment facility allows application programs to access DB2.

attribute. A characteristic of an entity. For example, in database design, the phone number of an employee is one of that employee's attributes.

authorization ID. A string that can be verified for connection to DB2 and to which a set of privileges is allowed. It can represent an individual, an organizational group, or a function, but DB2 does not determine this representation.

authorized program analysis report (APAR). A report of a problem that is caused by a suspected defect in a current release of an IBM supplied program.

authorized program facility (APF). A facility that permits the identification of programs that are authorized to use restricted functions.

automatic query rewrite. A process that examines an SQL statement that refers to one or more base tables, and, if appropriate, rewrites the query so that it performs better. This process can also determine whether to rewrite a query so that it refers to one or more materialized query tables that are derived from the source tables.

auxiliary index. An index on an auxiliary table in which each index entry refers to a LOB.

auxiliary table. A table that stores columns outside the table in which they are defined. Contrast with *base table*.

B

backout. The process of undoing uncommitted changes that an application process made. This might be necessary in the event of a failure on the part of an application process, or as a result of a deadlock situation.

backward log recovery. The fourth and final phase of restart processing during which DB2 scans the log in a backward direction to apply UNDO log records for all aborted changes.

base table. (1) A table that is created by the SQL CREATE TABLE statement and that holds persistent data. Contrast with *result table* and *temporary table*.

(2) A table containing a LOB column definition. The actual LOB column data is not stored with the base table. The base table contains a row identifier for each row and an indicator column for each of its LOB columns. Contrast with *auxiliary table*.

base table space. A table space that contains base tables.

basic predicate. A predicate that compares two values.

basic sequential access method (BSAM). An access method for storing or retrieving data blocks in a continuous sequence, using either a sequential-access or a direct-access device.

batch message processing program. In IMS, an application program that can perform batch-type processing online and can access the IMS input and output message queues.

before trigger. A trigger that is defined with the trigger activation time BEFORE.

binary integer. A basic data type that can be further classified as small integer or large integer.

binary large object (BLOB). A sequence of bytes where the size of the value ranges from 0 bytes to 2 GB–1. Such a string does not have an associated CCSID.

binary string. A sequence of bytes that is not associated with a CCSID. For example, the BLOB data type is a binary string.

bind. The process by which the output from the SQL precompiler is converted to a usable control structure, often called an access plan, application plan, or package. During this process, access paths to the data are selected and some authorization checking is performed. The types of bind are:

automatic bind. (More correctly, *automatic rebind*) A process by which SQL statements are bound automatically (without a user issuing a BIND command) when an application process begins execution and the bound application plan or package it requires is not valid.

dynamic bind. A process by which SQL statements are bound as they are entered.

incremental bind. A process by which SQL statements are bound during the execution of an application process.

static bind. A process by which SQL statements are bound after they have been precompiled. All static SQL statements are prepared for execution at the same time.

bit data. Data that is character type CHAR or VARCHAR and is not associated with a coded character set.

BLOB. Binary large object.

block fetch. A capability in which DB2 can retrieve, or fetch, a large set of rows together. Using block fetch can significantly reduce the number of messages that are being sent across the network. Block fetch applies only to cursors that do not update data.

BMP. Batch Message Processing (IMS). See *batch message processing program*.

bootstrap data set (BSDS). A VSAM data set that contains name and status information for DB2, as well as RBA range specifications, for all active and archive log data sets. It also contains passwords for the DB2 directory and catalog, and lists of conditional restart and checkpoint records.

BSAM. Basic sequential access method.

BSDS. Bootstrap data set.

buffer pool. Main storage that is reserved to satisfy the buffering requirements for one or more table spaces or indexes.

built-in data type. A data type that IBM supplies. Among the built-in data types for DB2 UDB for z/OS are string, numeric, ROWID, and datetime. Contrast with *distinct type*.

built-in function. A function that DB2 supplies. Contrast with *user-defined function*.

business dimension. A category of data, such as products or time periods, that an organization might want to analyze.

C

cache structure. A coupling facility structure that stores data that can be available to all members of a Sysplex. A DB2 data sharing group uses cache structures as group buffer pools.

CAF. Call attachment facility.

call attachment facility (CAF). A DB2 attachment facility for application programs that run in TSO or z/OS batch. The CAF is an alternative to the DSN command processor and provides greater control over the execution environment.

call-level interface (CLI). A callable application programming interface (API) for database access, which is an alternative to using embedded SQL. In contrast to embedded SQL, DB2 ODBC (which is based on the CLI architecture) does not require the user to precompile or bind applications, but instead provides a standard set of functions to process SQL statements and related services at run time.

cascade delete. The way in which DB2 enforces referential constraints when it deletes all descendent rows of a deleted parent row.

CASE expression. An expression that is selected based on the evaluation of one or more conditions.

cast function. A function that is used to convert instances of a (source) data type into instances of a different (target) data type. In general, a cast function has the name of the target data type. It has one single argument whose type is the source data type; its return type is the target data type.

castout. The DB2 process of writing changed pages from a group buffer pool to disk.

castout owner. The DB2 member that is responsible for casting out a particular page set or partition.

catalog. In DB2, a collection of tables that contains descriptions of objects such as tables, views, and indexes.

catalog table • closed application

catalog table. Any table in the DB2 catalog.

CCSID. Coded character set identifier.

CDB. Communications database.

CDRA. Character Data Representation Architecture.

CEC. Central electronic complex. See *central processor complex*.

central electronic complex (CEC). See *central processor complex*.

central processor (CP). The part of the computer that contains the sequencing and processing facilities for instruction execution, initial program load, and other machine operations.

central processor complex (CPC). A physical collection of hardware (such as an ES/3090™) that consists of main storage, one or more central processors, timers, and channels.

CFRM. Coupling facility resource management.

CFRM policy. A declaration by a z/OS administrator regarding the allocation rules for a coupling facility structure.

character conversion. The process of changing characters from one encoding scheme to another.

Character Data Representation Architecture (CDRA). An architecture that is used to achieve consistent representation, processing, and interchange of string data.

character large object (CLOB). A sequence of bytes representing single-byte characters or a mixture of single- and double-byte characters where the size of the value can be up to 2 GB–1. In general, character large object values are used whenever a character string might exceed the limits of the VARCHAR type.

character set. A defined set of characters.

character string. A sequence of bytes that represent bit data, single-byte characters, or a mixture of single-byte and multibyte characters.

check constraint. A user-defined constraint that specifies the values that specific columns of a base table can contain.

check integrity. The condition that exists when each row in a table conforms to the check constraints that are defined on that table. Maintaining check integrity requires DB2 to enforce check constraints on operations that add or change data.

check pending. A state of a table space or partition that prevents its use by some utilities and by some SQL

statements because of rows that violate referential constraints, check constraints, or both.

checkpoint. A point at which DB2 records internal status information on the DB2 log; the recovery process uses this information if DB2 abnormally terminates.

child lock. For explicit hierarchical locking, a lock that is held on either a table, page, row, or a large object (LOB). Each child lock has a parent lock. See also *parent lock*.

CI. Control interval.

CICS. Represents (in this publication): CICS Transaction Server for z/OS: Customer Information Control System Transaction Server for z/OS.

CICS attachment facility. A DB2 subcomponent that uses the z/OS subsystem interface (SSI) and cross-storage linkage to process requests from CICS to DB2 and to coordinate resource commitment.

CIDF. Control interval definition field.

claim. A notification to DB2 that an object is being accessed. Claims prevent drains from occurring until the claim is released, which usually occurs at a commit point. Contrast with *drain*.

claim class. A specific type of object access that can be one of the following isolation levels:
Cursor stability (CS)
Repeatable read (RR)
Write

claim count. A count of the number of agents that are accessing an object.

class of service. A VTAM term for a list of routes through a network, arranged in an order of preference for their use.

class word. A single word that indicates the nature of a data attribute. For example, the class word PROJ indicates that the attribute identifies a project.

clause. In SQL, a distinct part of a statement, such as a SELECT clause or a WHERE clause.

CLI. Call- level interface.

client. See *requester*.

CLIST. Command list. A language for performing TSO tasks.

CLOB. Character large object.

closed application. An application that requires exclusive use of certain statements on certain DB2 objects, so that the objects are managed solely through the application's external interface.

CLPA. Create link pack area.

clustering index. An index that determines how rows are physically ordered (*clustered*) in a table space. If a clustering index on a partitioned table is not a partitioning index, the rows are ordered in cluster sequence within each data partition instead of spanning partitions. Prior to Version 8 of DB2 UDB for z/OS, the partitioning index was required to be the clustering index.

coded character set. A set of unambiguous rules that establish a character set and the one-to-one relationships between the characters of the set and their coded representations.

coded character set identifier (CCSID). A 16-bit number that uniquely identifies a coded representation of graphic characters. It designates an encoding scheme identifier and one or more pairs consisting of a character set identifier and an associated code page identifier.

code page. (1) A set of assignments of characters to code points. In EBCDIC, for example, the character 'A' is assigned code point X'C1' (2) , and character 'B' is assigned code point X'C2'. Within a code page, each code point has only one specific meaning.

code point. In CDRA, a unique bit pattern that represents a character in a code page.

coexistence. During migration, the period of time in which two releases exist in the same data sharing group.

cold start. A process by which DB2 restarts without processing any log records. Contrast with *warm start*.

collection. A group of packages that have the same qualifier.

column. The vertical component of a table. A column has a name and a particular data type (for example, character, decimal, or integer).

column function. An operation that derives its result by using values from one or more rows. Contrast with *scalar function*.

"come from" checking. An LU 6.2 security option that defines a list of authorization IDs that are allowed to connect to DB2 from a partner LU.

command. A DB2 operator command or a DSN subcommand. A command is distinct from an SQL statement.

command prefix. A one- to eight-character command identifier. The command prefix distinguishes the command as belonging to an application or subsystem rather than to MVS.

command recognition character (CRC). A character that permits a z/OS console operator or an IMS subsystem user to route DB2 commands to specific DB2 subsystems.

command scope. The scope of command operation in a data sharing group. If a command has *member scope*, the command displays information only from the one member or affects only non-shared resources that are owned locally by that member. If a command has *group scope*, the command displays information from all members, affects non-shared resources that are owned locally by all members, displays information on sharable resources, or affects sharable resources.

commit. The operation that ends a unit of work by releasing locks so that the database changes that are made by that unit of work can be perceived by other processes.

commit point. A point in time when data is considered consistent.

committed phase. The second phase of the multisite update process that requests all participants to commit the effects of the logical unit of work.

common service area (CSA). In z/OS, a part of the common area that contains data areas that are addressable by all address spaces.

communications database (CDB). A set of tables in the DB2 catalog that are used to establish conversations with remote database management systems.

comparison operator. A token (such as =, >, or <) that is used to specify a relationship between two values.

composite key. An ordered set of key columns of the same table.

compression dictionary. The dictionary that controls the process of compression and decompression. This dictionary is created from the data in the table space or table space partition.

concurrency. The shared use of resources by more than one application process at the same time.

conditional restart. A DB2 restart that is directed by a user-defined conditional restart control record (CRCR).

connection. In SNA, the existence of a communication path between two partner LUs that allows information to be exchanged (for example, two DB2 subsystems that are connected and communicating by way of a conversation).

connection context. In SQLJ, a Java™ object that represents a connection to a data source.

connection declaration clause • coupling facility resource management

connection declaration clause. In SQLJ, a statement that declares a connection to a data source.

connection handle. The data object containing information that is associated with a connection that DB2 ODBC manages. This includes general status information, transaction status, and diagnostic information.

connection ID. An identifier that is supplied by the attachment facility and that is associated with a specific address space connection.

consistency token. A timestamp that is used to generate the version identifier for an application. See also *version*.

constant. A language element that specifies an unchanging value. Constants are classified as string constants or numeric constants. Contrast with *variable*.

constraint. A rule that limits the values that can be inserted, deleted, or updated in a table. See *referential constraint*, *check constraint*, and *unique constraint*.

context. The application's logical connection to the data source and associated internal DB2 ODBC connection information that allows the application to direct its operations to a data source. A DB2 ODBC context represents a DB2 thread.

contracting conversion. A process that occurs when the length of a converted string is smaller than that of the source string. For example, this process occurs when an EBCDIC mixed-data string that contains DBCS characters is converted to ASCII mixed data; the converted string is shorter because of the removal of the shift codes.

control interval (CI). A fixed-length area or disk in which VSAM stores records and creates distributed free space. Also, in a key-sequenced data set or file, the set of records that an entry in the sequence-set index record points to. The control interval is the unit of information that VSAM transmits to or from disk. A control interval always includes an integral number of physical records.

control interval definition field (CIDF). In VSAM, a field that is located in the 4 bytes at the end of each control interval; it describes the free space, if any, in the control interval.

conversation. Communication, which is based on LU 6.2 or Advanced Program-to-Program Communication (APPC), between an application and a remote transaction program over an SNA logical unit-to-logical unit (LU-LU) session that allows communication while processing a transaction.

coordinator. The system component that coordinates the commit or rollback of a unit of work that includes work that is done on one or more other systems.

copy pool. A named set of SMS storage groups that contains data that is to be copied collectively. A copy pool is an SMS construct that lets you define which storage groups are to be copied by using FlashCopy® functions. HSM determines which volumes belong to a copy pool.

copy target. A named set of SMS storage groups that are to be used as containers for copy pool volume copies. A copy target is an SMS construct that lets you define which storage groups are to be used as containers for volumes that are copied by using FlashCopy functions.

copy version. A point-in-time FlashCopy copy that is managed by HSM. Each copy pool has a version parameter that specifies how many copy versions are maintained on disk.

correlated columns. A relationship between the value of one column and the value of another column.

correlated subquery. A subquery (part of a WHERE or HAVING clause) that is applied to a row or group of rows of a table or view that is named in an outer subselect statement.

correlation ID. An identifier that is associated with a specific thread. In TSO, it is either an authorization ID or the job name.

correlation name. An identifier that designates a table, a view, or individual rows of a table or view within a single SQL statement. It can be defined in any FROM clause or in the first clause of an UPDATE or DELETE statement.

cost category. A category into which DB2 places cost estimates for SQL statements at the time the statement is bound. A cost estimate can be placed in either of the following cost categories:

- A: Indicates that DB2 had enough information to make a cost estimate without using default values.
- B: Indicates that some condition exists for which DB2 was forced to use default values for its estimate.

The cost category is externalized in the COST_CATEGORY column of the DSN_STATEMNT_TABLE when a statement is explained.

coupling facility. A special PR/SM™ LPAR logical partition that runs the coupling facility control program and provides high-speed caching, list processing, and locking functions in a Parallel Sysplex®.

coupling facility resource management. A component of z/OS that provides the services to manage coupling facility resources in a Parallel Sysplex. This management includes the enforcement of CFRM policies to ensure that the coupling facility and structure requirements are satisfied.

CP. Central processor.

CPC. Central processor complex.

C++ member. A data object or function in a structure, union, or class.

C++ member function. An operator or function that is declared as a member of a class. A member function has access to the private and protected data members and to the member functions of objects in its class. Member functions are also called methods.

C++ object. (1) A region of storage. An object is created when a variable is defined or a new function is invoked. (2) An instance of a class.

CRC. Command recognition character.

CRCR. Conditional restart control record. See also *conditional restart*.

create link pack area (CLPA). An option that is used during IPL to initialize the link pack pageable area.

created temporary table. A table that holds temporary data and is defined with the SQL statement CREATE GLOBAL TEMPORARY TABLE. Information about created temporary tables is stored in the DB2 catalog, so this kind of table is persistent and can be shared across application processes. Contrast with *declared temporary table*. See also *temporary table*.

cross-memory linkage. A method for invoking a program in a different address space. The invocation is synchronous with respect to the caller.

cross-system coupling facility (XCF). A component of z/OS that provides functions to support cooperation between authorized programs that run within a Sysplex.

cross-system extended services (XES). A set of z/OS services that allow multiple instances of an application or subsystem, running on different systems in a Sysplex environment, to implement high-performance, high-availability data sharing by using a coupling facility.

CS. Cursor stability.

CSA. Common service area.

CT. Cursor table.

current data. Data within a host structure that is current with (identical to) the data within the base table.

current SQL ID. An ID that, at a single point in time, holds the privileges that are exercised when certain dynamic SQL statements run. The current SQL ID can be a primary authorization ID or a secondary authorization ID.

current status rebuild. The second phase of restart processing during which the status of the subsystem is reconstructed from information on the log.

cursor. A named control structure that an application program uses to point to a single row or multiple rows within some ordered set of rows of a result table. A cursor can be used to retrieve, update, or delete rows from a result table.

cursor sensitivity. The degree to which database updates are visible to the subsequent FETCH statements in a cursor. A cursor can be sensitive to changes that are made with positioned update and delete statements specifying the name of that cursor. A cursor can also be sensitive to changes that are made with searched update or delete statements, or with cursors other than this cursor. These changes can be made by this application process or by another application process.

cursor stability (CS). The isolation level that provides maximum concurrency without the ability to read uncommitted data. With cursor stability, a unit of work holds locks only on its uncommitted changes and on the current row of each of its cursors.

cursor table (CT). The copy of the skeleton cursor table that is used by an executing application process.

cycle. A set of tables that can be ordered so that each table is a descendent of the one before it, and the first table is a descendent of the last table. A self-referencing table is a cycle with a single member.

D

DAD. See *Document access definition*.

disk. A direct-access storage device that records data magnetically.

database. A collection of tables, or a collection of table spaces and index spaces.

database access thread. A thread that accesses data at the local subsystem on behalf of a remote subsystem.

database administrator (DBA). An individual who is responsible for designing, developing, operating, safeguarding, maintaining, and using a database.

database alias. The name of the target server if different from the location name. The database alias name is used to provide the name of the database server as it is known to the network. When a database alias name is defined, the location name is used by the application to reference the server, but the database alias name is used to identify the database server to be accessed. Any fully qualified object names within any

database descriptor (DBD) • DBD

SQL statements are not modified and are sent unchanged to the database server.

database descriptor (DBD). An internal representation of a DB2 database definition, which reflects the data definition that is in the DB2 catalog. The objects that are defined in a database descriptor are table spaces, tables, indexes, index spaces, relationships, check constraints, and triggers. A DBD also contains information about accessing tables in the database.

database exception status. An indication that something is wrong with a database. All members of a data sharing group must know and share the exception status of databases.

database identifier (DBID). An internal identifier of the database.

database management system (DBMS). A software system that controls the creation, organization, and modification of a database and the access to the data that is stored within it.

database request module (DBRM). A data set member that is created by the DB2 precompiler and that contains information about SQL statements. DBRMs are used in the bind process.

database server. The target of a request from a local application or an intermediate database server. In the DB2 environment, the database server function is provided by the distributed data facility to access DB2 data from local applications, or from a remote database server that acts as an intermediate database server.

data currency. The state in which data that is retrieved into a host variable in your program is a copy of data in the base table.

data definition name (ddname). The name of a data definition (DD) statement that corresponds to a data control block containing the same name.

data dictionary. A repository of information about an organization's application programs, databases, logical data models, users, and authorizations. A data dictionary can be manual or automated.

data-driven business rules. Constraints on particular data values that exist as a result of requirements of the business.

Data Language/I (DL/I). The IMS data manipulation language; a common high-level interface between a user application and IMS.

data mart. A small data warehouse that applies to a single department or team. See also *data warehouse*.

data mining. The process of collecting critical business information from a data warehouse, correlating it, and uncovering associations, patterns, and trends.

data partition. A VSAM data set that is contained within a partitioned table space.

data-partitioned secondary index (DPSI). A secondary index that is partitioned. The index is partitioned according to the underlying data.

data sharing. The ability of two or more DB2 subsystems to directly access and change a single set of data.

data sharing group. A collection of one or more DB2 subsystems that directly access and change the same data while maintaining data integrity.

data sharing member. A DB2 subsystem that is assigned by XCF services to a data sharing group.

data source. A local or remote relational or non-relational data manager that is capable of supporting data access via an ODBC driver that supports the ODBC APIs. In the case of DB2 UDB for z/OS, the data sources are always relational database managers.

data space. In releases prior to DB2 UDB for z/OS, Version 8, a range of up to 2 GB of contiguous virtual storage addresses that a program can directly manipulate. Unlike an address space, a data space can hold only data; it does not contain common areas, system data, or programs.

data type. An attribute of columns, literals, host variables, special registers, and the results of functions and expressions.

data warehouse. A system that provides critical business information to an organization. The data warehouse system cleanses the data for accuracy and currency, and then presents the data to decision makers so that they can interpret and use it effectively and efficiently.

date. A three-part value that designates a day, month, and year.

date duration. A decimal integer that represents a number of years, months, and days.

datetime value. A value of the data type DATE, TIME, or TIMESTAMP.

DBA. Database administrator.

DBCLOB. Double-byte character large object.

DBCS. Double-byte character set.

DBD. Database descriptor.

DBID. Database identifier.

DBMS. Database management system.

DBRM. Database request module.

DB2 catalog. Tables that are maintained by DB2 and contain descriptions of DB2 objects, such as tables, views, and indexes.

DB2 command. An instruction to the DB2 subsystem that a user enters to start or stop DB2, to display information on current users, to start or stop databases, to display information on the status of databases, and so on.

DB2 for VSE & VM. The IBM DB2 relational database management system for the VSE and VM operating systems.

DB2I. DB2 Interactive.

DB2 Interactive (DB2I). The DB2 facility that provides for the execution of SQL statements, DB2 (operator) commands, programmer commands, and utility invocation.

DB2I Kanji Feature. The tape that contains the panels and jobs that allow a site to display DB2I panels in Kanji.

DB2 PM. DB2 Performance Monitor.

DB2 thread. The DB2 structure that describes an application's connection, traces its progress, processes resource functions, and delimits its accessibility to DB2 resources and services.

DCLGEN. Declarations generator.

DDF. Distributed data facility.

ddname. Data definition name.

deadlock. Unresolvable contention for the use of a resource, such as a table or an index.

declarations generator (DCLGEN). A subcomponent of DB2 that generates SQL table declarations and COBOL, C, or PL/I data structure declarations that conform to the table. The declarations are generated from DB2 system catalog information. DCLGEN is also a DSN subcommand.

declared temporary table. A table that holds temporary data and is defined with the SQL statement DECLARE GLOBAL TEMPORARY TABLE. Information about declared temporary tables is not stored in the DB2 catalog, so this kind of table is not persistent and can be used only by the application process that issued the DECLARE statement. Contrast with *created temporary table*. See also *temporary table*.

default value. A predetermined value, attribute, or option that is assumed when no other is explicitly specified.

deferred embedded SQL. SQL statements that are neither fully static nor fully dynamic. Like static statements, they are embedded within an application, but like dynamic statements, they are prepared during the execution of the application.

deferred write. The process of asynchronously writing changed data pages to disk.

degree of parallelism. The number of concurrently executed operations that are initiated to process a query.

delete-connected. A table that is a dependent of table P or a dependent of a table to which delete operations from table P cascade.

delete hole. The location on which a cursor is positioned when a row in a result table is refetched and the row no longer exists on the base table, because another cursor deleted the row between the time the cursor first included the row in the result table and the time the cursor tried to refetch it.

delete rule. The rule that tells DB2 what to do to a dependent row when a parent row is deleted. For each relationship, the rule might be CASCADE, RESTRICT, SET NULL, or NO ACTION.

delete trigger. A trigger that is defined with the triggering SQL operation DELETE.

delimited identifier. A sequence of characters that are enclosed within double quotation marks ("). The sequence must consist of a letter followed by zero or more characters, each of which is a letter, digit, or the underscore character (_).

delimiter token. A string constant, a delimited identifier, an operator symbol, or any of the special characters that are shown in DB2 syntax diagrams.

denormalization. A key step in the task of building a physical relational database design. Denormalization is the intentional duplication of columns in multiple tables, and the consequence is increased data redundancy. Denormalization is sometimes necessary to minimize performance problems. Contrast with *normalization*.

dependent. An object (row, table, or table space) that has at least one parent. The object is also said to be a dependent (row, table, or table space) of its parent. See also *parent row*, *parent table*, *parent table space*.

dependent row. A row that contains a foreign key that matches the value of a primary key in the parent row.

dependent table. A table that is a dependent in at least one referential constraint.

DES-based authenticator • DRDA access

DES-based authenticator. An authenticator that is generated using the DES algorithm.

descendent. An object that is a dependent of an object or is the dependent of a descendent of an object.

descendent row. A row that is dependent on another row, or a row that is a descendent of a dependent row.

descendent table. A table that is a dependent of another table, or a table that is a descendent of a dependent table.

deterministic function. A user-defined function whose result is dependent on the values of the input arguments. That is, successive invocations with the same input values produce the same answer. Sometimes referred to as a *not-variant* function. Contrast this with an *nondeterministic function* (sometimes called a *variant function*), which might not always produce the same result for the same inputs.

DFP. Data Facility Product (in z/OS).

DFSMS. Data Facility Storage Management Subsystem (in z/OS). Also called *Storage Management Subsystem (SMS)*.

DFSMSdss™. The data set services (dss) component of DFSMS (in z/OS).

DFSMShsm™. The hierarchical storage manager (hsm) component of DFSMS (in z/OS).

dimension. A data category such as time, products, or markets. The elements of a dimension are referred to as members. Dimensions offer a very concise, intuitive way of organizing and selecting data for retrieval, exploration, and analysis. See also *dimension table*.

dimension table. The representation of a dimension in a star schema. Each row in a dimension table represents all of the attributes for a particular member of the dimension. See also *dimension*, *star schema*, and *star join*.

directory. The DB2 system database that contains internal objects such as database descriptors and skeleton cursor tables.

distinct type. A user-defined data type that is internally represented as an existing type (its source type), but is considered to be a separate and incompatible type for semantic purposes.

distributed data. Data that resides on a DBMS other than the local system.

distributed data facility (DDF). A set of DB2 components through which DB2 communicates with another relational database management system.

Distributed Relational Database Architecture™ (DRDA). A connection protocol for distributed relational database processing that is used by IBM's relational database products. DRDA includes protocols for communication between an application and a remote relational database management system, and for communication between relational database management systems. See also *DRDA access*.

DL/I. Data Language/I.

DNS. Domain name server.

document access definition (DAD). Used to define the indexing scheme for an XML column or the mapping scheme of an XML collection. It can be used to enable an XML Extender column of an XML collection, which is XML formatted.

domain. The set of valid values for an attribute.

domain name. The name by which TCP/IP applications refer to a TCP/IP host within a TCP/IP network.

domain name server (DNS). A special TCP/IP network server that manages a distributed directory that is used to map TCP/IP host names to IP addresses.

double-byte character large object (DBCLOB). A sequence of bytes representing double-byte characters where the size of the values can be up to 2 GB. In general, DBCLOB values are used whenever a double-byte character string might exceed the limits of the VARGRAPHIC type.

double-byte character set (DBCS). A set of characters, which are used by national languages such as Japanese and Chinese, that have more symbols than can be represented by a single byte. Each character is 2 bytes in length. Contrast with *single-byte character set* and *multibyte character set*.

double-precision floating point number. A 64-bit approximate representation of a real number.

downstream. The set of nodes in the syncpoint tree that is connected to the local DBMS as a participant in the execution of a two-phase commit.

DPSI. Data-partitioned secondary index.

drain. The act of acquiring a locked resource by quiescing access to that object.

drain lock. A lock on a claim class that prevents a claim from occurring.

DRDA. Distributed Relational Database Architecture.

DRDA access. An open method of accessing distributed data that you can use to connect to another database server to execute packages that were previously bound at the server location. You use the

SQL CONNECT statement or an SQL statement with a three-part name to identify the server. Contrast with *private protocol access*.

DSN. (1) The default DB2 subsystem name. (2) The name of the TSO command processor of DB2. (3) The first three characters of DB2 module and macro names.

duration. A number that represents an interval of time. See also *date duration*, *labeled duration*, and *time duration*.

dynamic cursor. A named control structure that an application program uses to change the size of the result table and the order of its rows after the cursor is opened. Contrast with *static cursor*.

dynamic dump. A dump that is issued during the execution of a program, usually under the control of that program.

dynamic SQL. SQL statements that are prepared and executed within an application program while the program is executing. In dynamic SQL, the SQL source is contained in host language variables rather than being coded into the application program. The SQL statement can change several times during the application program's execution.

dynamic statement cache pool. A cache, located above the 2-GB storage line, that holds dynamic statements.

E

EA-enabled table space. A table space or index space that is enabled for extended addressability and that contains individual partitions (or pieces, for LOB table spaces) that are greater than 4 GB.

EB. See *exabyte*.

EBCDIC. Extended binary coded decimal interchange code. An encoding scheme that is used to represent character data in the z/OS, VM, VSE, and iSeries™ environments. Contrast with *ASCII* and *Unicode*.

e-business. The transformation of key business processes through the use of Internet technologies.

EDM pool. A pool of main storage that is used for database descriptors, application plans, authorization cache, application packages.

EID. Event identifier.

embedded SQL. SQL statements that are coded within an application program. See *static SQL*.

enclave. In Language Environment®, an independent collection of routines, one of which is designated as the main routine. An enclave is similar to a program or run unit.

encoding scheme. A set of rules to represent character data (ASCII, EBCDIC, or Unicode).

entity. A significant object of interest to an organization.

enumerated list. A set of DB2 objects that are defined with a LISTDEF utility control statement in which pattern-matching characters (*, %, _ or ?) are not used.

environment. A collection of names of logical and physical resources that are used to support the performance of a function.

environment handle. In DB2 ODBC, the data object that contains global information regarding the state of the application. An environment handle must be allocated before a connection handle can be allocated. Only one environment handle can be allocated per application.

EOM. End of memory.

EOT. End of task.

equijoin. A join operation in which the join-condition has the form *expression = expression*.

error page range. A range of pages that are considered to be physically damaged. DB2 does not allow users to access any pages that fall within this range.

escape character. The symbol that is used to enclose an SQL delimited identifier. The escape character is the double quotation mark ("), except in COBOL applications, where the user assigns the symbol, which is either a double quotation mark or an apostrophe (').

ESDS. Entry sequenced data set.

ESMT. External subsystem module table (in IMS).

EUR. IBM European Standards.

exabyte. For processor, real and virtual storage capacities and channel volume:
1 152 921 504 606 846 976 bytes or 2⁶⁰.

exception table. A table that holds rows that violate referential constraints or check constraints that the CHECK DATA utility finds.

exclusive lock. A lock that prevents concurrently executing application processes from reading or changing data. Contrast with *share lock*.

executable statement. An SQL statement that can be embedded in an application program, dynamically prepared and executed, or issued interactively.

execution context. In SQLJ, a Java object that can be used to control the execution of SQL statements.

exit routine • forest

exit routine. A user-written (or IBM-provided default) program that receives control from DB2 to perform specific functions. Exit routines run as extensions of DB2.

expanding conversion. A process that occurs when the length of a converted string is greater than that of the source string. For example, this process occurs when an ASCII mixed-data string that contains DBCS characters is converted to an EBCDIC mixed-data string; the converted string is longer because of the addition of shift codes.

explicit hierarchical locking. Locking that is used to make the parent-child relationship between resources known to IRLM. This kind of locking avoids global locking overhead when no inter-DB2 interest exists on a resource.

exposed name. A correlation name or a table or view name for which a correlation name is not specified. Names that are specified in a FROM clause are exposed or non-exposed.

expression. An operand or a collection of operators and operands that yields a single value.

extended recovery facility (XRF). A facility that minimizes the effect of failures in z/OS, VTAM, the host processor, or high-availability applications during sessions between high-availability applications and designated terminals. This facility provides an alternative subsystem to take over sessions from the failing subsystem.

Extensible Markup Language (XML). A standard metalanguage for defining markup languages that is a subset of Standardized General Markup Language (SGML). The less complex nature of XML makes it easier to write applications that handle document types, to author and manage structured information, and to transmit and share structured information across diverse computing environments.

external function. A function for which the body is written in a programming language that takes scalar argument values and produces a scalar result for each invocation. Contrast with *sourced function*, *built-in function*, and *SQL function*.

external procedure. A user-written application program that can be invoked with the SQL CALL statement, which is written in a programming language. Contrast with *SQL procedure*.

external routine. A user-defined function or stored procedure that is based on code that is written in an external programming language.

external subsystem module table (ESMT). In IMS, the table that specifies which attachment modules must be loaded.

F

failed member state. A state of a member of a data sharing group. When a member fails, the XCF permanently records the failed member state. This state usually means that the member's task, address space, or z/OS system terminated before the state changed from active to quiesced.

fallback. The process of returning to a previous release of DB2 after attempting or completing migration to a current release.

false global lock contention. A contention indication from the coupling facility when multiple lock names are hashed to the same indicator and when no real contention exists.

fan set. A direct physical access path to data, which is provided by an index, hash, or link; a fan set is the means by which the data manager supports the ordering of data.

federated database. The combination of a DB2 Universal Database server (in Linux, UNIX®, and Windows® environments) and multiple data sources to which the server sends queries. In a federated database system, a client application can use a single SQL statement to join data that is distributed across multiple database management systems and can view the data as if it were local.

fetch orientation. The specification of the desired placement of the cursor as part of a FETCH statement (for example, BEFORE, AFTER, NEXT, PRIOR, CURRENT, FIRST, LAST, ABSOLUTE, and RELATIVE).

field procedure. A user-written exit routine that is designed to receive a single value and transform (encode or decode) it in any way the user can specify.

filter factor. A number between zero and one that estimates the proportion of rows in a table for which a predicate is true.

fixed-length string. A character or graphic string whose length is specified and cannot be changed. Contrast with *varying-length string*.

FlashCopy. A function on the IBM Enterprise Storage Server® that can create a point-in-time copy of data while an application is running.

foreign key. A column or set of columns in a dependent table of a constraint relationship. The key must have the same number of columns, with the same descriptions, as the primary key of the parent table. Each foreign key value must either match a parent key value in the related parent table or be null.

forest. An ordered set of subtrees of XML nodes.

forget. In a two-phase commit operation, (1) the vote that is sent to the prepare phase when the participant has not modified any data. The forget vote allows a participant to release locks and forget about the logical unit of work. This is also referred to as the read-only vote. (2) The response to the *committed* request in the second phase of the operation.

forward log recovery. The third phase of restart processing during which DB2 processes the log in a forward direction to apply all REDO log records.

free space. The total amount of unused space in a page; that is, the space that is not used to store records or control information is free space.

full outer join. The result of a join operation that includes the matched rows of both tables that are being joined and preserves the unmatched rows of both tables. See also *join*.

fullselect. A subselect, a values-clause, or a number of both that are combined by set operators. *Fullselect* specifies a result table. If UNION is not used, the result of the fullselect is the result of the specified subselect.

fully escaped mapping. A mapping from an SQL identifier to an XML name when the SQL identifier is a column name.

function. A mapping, which is embodied as a program (the function body) that is invocable by means of zero or more input values (arguments) to a single value (the result). See also *column function* and *scalar function*.

Functions can be user-defined, built-in, or generated by DB2. (See also *built-in function*, *cast function*, *external function*, *sourced function*, *SQL function*, and *user-defined function*.)

function definer. The authorization ID of the owner of the schema of the function that is specified in the CREATE FUNCTION statement.

function implementer. The authorization ID of the owner of the function program and function package.

function package. A package that results from binding the DBRM for a function program.

function package owner. The authorization ID of the user who binds the function program's DBRM into a function package.

function resolution. The process, internal to the DBMS, by which a function invocation is bound to a particular function instance. This process uses the function name, the data types of the arguments, and a list of the applicable schema names (called the *SQL path*) to make the selection. This process is sometimes called *function selection*.

function selection. See *function resolution*.

function signature. The logical concatenation of a fully qualified function name with the data types of all of its parameters.

G

GB. Gigabyte (1 073 741 824 bytes).

GBP. Group buffer pool.

GBP-dependent. The status of a page set or page set partition that is dependent on the group buffer pool. Either read/write interest is active among DB2 subsystems for this page set, or the page set has changed pages in the group buffer pool that have not yet been cast out to disk.

generalized trace facility (GTF). A z/OS service program that records significant system events such as I/O interrupts, SVC interrupts, program interrupts, or external interrupts.

generic resource name. A name that VTAM uses to represent several application programs that provide the same function in order to handle session distribution and balancing in a Sysplex environment.

getpage. An operation in which DB2 accesses a data page.

global lock. A lock that provides concurrency control within and among DB2 subsystems. The scope of the lock is across all DB2 subsystems of a data sharing group.

global lock contention. Conflicts on locking requests between different DB2 members of a data sharing group when those members are trying to serialize shared resources.

governor. See *resource limit facility*.

graphic string. A sequence of DBCS characters.

gross lock. The *shared*, *update*, or *exclusive* mode locks on a table, partition, or table space.

group buffer pool (GBP). A coupling facility cache structure that is used by a data sharing group to cache data and to ensure that the data is consistent for all members.

group buffer pool duplexing. The ability to write data to two instances of a group buffer pool structure: a *primary group buffer pool* and a *secondary group buffer pool*. z/OS publications refer to these instances as the "old" (for primary) and "new" (for secondary) structures.

group level. The release level of a data sharing group, which is established when the first member migrates to a new release.

group name • IMS

group name. The z/OS XCF identifier for a data sharing group.

group restart. A restart of at least one member of a data sharing group after the loss of either locks or the shared communications area.

GTF. Generalized trace facility.

H

handle. In DB2 ODBC, a variable that refers to a data structure and associated resources. See also *statement handle*, *connection handle*, and *environment handle*.

help panel. A screen of information that presents tutorial text to assist a user at the workstation or terminal.

heuristic damage. The inconsistency in data between one or more participants that results when a heuristic decision to resolve an indoubt LUW at one or more participants differs from the decision that is recorded at the coordinator.

heuristic decision. A decision that forces indoubt resolution at a participant by means other than automatic resynchronization between coordinator and participant.

hole. A row of the result table that cannot be accessed because of a delete or an update that has been performed on the row. See also *delete hole* and *update hole*.

home address space. The area of storage that z/OS currently recognizes as *dispatched*.

host. The set of programs and resources that are available on a given TCP/IP instance.

host expression. A Java variable or expression that is referenced by SQL clauses in an SQLJ application program.

host identifier. A name that is declared in the host program.

host language. A programming language in which you can embed SQL statements.

host program. An application program that is written in a host language and that contains embedded SQL statements.

host structure. In an application program, a structure that is referenced by embedded SQL statements.

host variable. In an application program, an application variable that is referenced by embedded SQL statements.

host variable array. An array of elements, each of which corresponds to a value for a column. The dimension of the array determines the maximum number of rows for which the array can be used.

HSM. Hierarchical storage manager.

HTML. Hypertext Markup Language, a standard method for presenting Web data to users.

HTTP. Hypertext Transfer Protocol, a communication protocol that the Web uses.

I

ICF. Integrated catalog facility.

IDCAMS. An IBM program that is used to process access method services commands. It can be invoked as a job or jobstep, from a TSO terminal, or from within a user's application program.

IDCAMS LISTCAT. A facility for obtaining information that is contained in the access method services catalog.

identify. A request that an attachment service program in an address space that is separate from DB2 issues thorough the z/OS subsystem interface to inform DB2 of its existence and to initiate the process of becoming connected to DB2.

identity column. A column that provides a way for DB2 to automatically generate a numeric value for each row. The generated values are unique if cycling is not used. Identity columns are defined with the AS IDENTITY clause. Uniqueness of values can be ensured by defining a unique index that contains only the identity column. A table can have no more than one identity column.

IFCID. Instrumentation facility component identifier.

IFI. Instrumentation facility interface.

IFI call. An invocation of the instrumentation facility interface (IFI) by means of one of its defined functions.

IFP. IMS Fast Path.

image copy. An exact reproduction of all or part of a table space. DB2 provides utility programs to make full image copies (to copy the entire table space) or incremental image copies (to copy only those pages that have been modified since the last image copy).

implied forget. In the presumed-abort protocol, an implied response of *forget* to the second-phase *committed* request from the coordinator. The response is implied when the participant responds to any subsequent request from the coordinator.

IMS. Information Management System.

IMS attachment facility. A DB2 subcomponent that uses z/OS subsystem interface (SSI) protocols and cross-memory linkage to process requests from IMS to DB2 and to coordinate resource commitment.

IMS DB. Information Management System Database.

IMS TM. Information Management System Transaction Manager.

in-abort. A status of a unit of recovery. If DB2 fails after a unit of recovery begins to be rolled back, but before the process is completed, DB2 continues to back out the changes during restart.

in-commit. A status of a unit of recovery. If DB2 fails after beginning its phase 2 commit processing, it "knows," when restarted, that changes made to data are consistent. Such units of recovery are termed *in-commit*.

independent. An object (row, table, or table space) that is neither a parent nor a dependent of another object.

index. A set of pointers that are logically ordered by the values of a key. Indexes can provide faster access to data and can enforce uniqueness on the rows in a table.

index-controlled partitioning. A type of partitioning in which partition boundaries for a partitioned table are controlled by values that are specified on the CREATE INDEX statement. Partition limits are saved in the LIMITKEY column of the SYSIBM.SYSINDEXPART catalog table.

index key. The set of columns in a table that is used to determine the order of index entries.

index partition. A VSAM data set that is contained within a partitioning index space.

index space. A page set that is used to store the entries of one index.

indicator column. A 4-byte value that is stored in a base table in place of a LOB column.

indicator variable. A variable that is used to represent the null value in an application program. If the value for the selected column is null, a negative value is placed in the indicator variable.

indoubt. A status of a unit of recovery. If DB2 fails after it has finished its phase 1 commit processing and before it has started phase 2, only the commit coordinator knows if an individual unit of recovery is to be committed or rolled back. At emergency restart, if DB2 lacks the information it needs to make this decision, the status of the unit of recovery is *indoubt* until DB2 obtains this information from the coordinator. More than one unit of recovery can be indoubt at restart.

indoubt resolution. The process of resolving the status of an indoubt logical unit of work to either the committed or the rollback state.

inflight. A status of a unit of recovery. If DB2 fails before its unit of recovery completes phase 1 of the commit process, it merely backs out the updates of its unit of recovery at restart. These units of recovery are termed *inflight*.

inheritance. The passing downstream of class resources or attributes from a parent class in the class hierarchy to a child class.

initialization file. For DB2 ODBC applications, a file containing values that can be set to adjust the performance of the database manager.

inline copy. A copy that is produced by the LOAD or REORG utility. The data set that the inline copy produces is logically equivalent to a full image copy that is produced by running the COPY utility with read-only access (SHRLEVEL REFERENCE).

inner join. The result of a join operation that includes only the matched rows of both tables that are being joined. See also *join*.

inoperative package. A package that cannot be used because one or more user-defined functions or procedures that the package depends on were dropped. Such a package must be explicitly rebound. Contrast with *invalid package*.

insensitive cursor. A cursor that is not sensitive to inserts, updates, or deletes that are made to the underlying rows of a result table after the result table has been materialized.

insert trigger. A trigger that is defined with the triggering SQL operation INSERT.

install. The process of preparing a DB2 subsystem to operate as a z/OS subsystem.

installation verification scenario. A sequence of operations that exercises the main DB2 functions and tests whether DB2 was correctly installed.

instrumentation facility component identifier (IFCID). A value that names and identifies a trace record of an event that can be traced. As a parameter on the START TRACE and MODIFY TRACE commands, it specifies that the corresponding event is to be traced.

instrumentation facility interface (IFI). A programming interface that enables programs to obtain online trace data about DB2, to submit DB2 commands, and to pass data to DB2.

Interactive System Productivity Facility (ISPF) • Kerberos ticket

Interactive System Productivity Facility (ISPF). An IBM licensed program that provides interactive dialog services in a z/OS environment.

inter-DB2 R/W interest. A property of data in a table space, index, or partition that has been opened by more than one member of a data sharing group and that has been opened for writing by at least one of those members.

intermediate database server. The target of a request from a local application or a remote application requester that is forwarded to another database server. In the DB2 environment, the remote request is forwarded transparently to another database server if the object that is referenced by a three-part name does not reference the local location.

internationalization. The support for an encoding scheme that is able to represent the code points of characters from many different geographies and languages. To support all geographies, the Unicode standard requires more than 1 byte to represent a single character. See also *Unicode*.

internal resource lock manager (IRLM). A z/OS subsystem that DB2 uses to control communication and database locking.

International Organization for Standardization. An international body charged with creating standards to facilitate the exchange of goods and services as well as cooperation in intellectual, scientific, technological, and economic activity.

invalid package. A package that depends on an object (other than a user-defined function) that is dropped. Such a package is implicitly rebound on invocation. Contrast with *inoperative package*.

invariant character set. (1) A character set, such as the syntactic character set, whose code point assignments do not change from code page to code page. (2) A minimum set of characters that is available as part of all character sets.

IP address. A 4-byte value that uniquely identifies a TCP/IP host.

IRLM. Internal resource lock manager.

ISO. International Organization for Standardization.

isolation level. The degree to which a unit of work is isolated from the updating operations of other units of work. See also *cursor stability*, *read stability*, *repeatable read*, and *uncommitted read*.

ISPF. Interactive System Productivity Facility.

ISPF/PDF. Interactive System Productivity Facility/Program Development Facility.

iterator. In SQLJ, an object that contains the result set of a query. An iterator is equivalent to a cursor in other host languages.

iterator declaration clause. In SQLJ, a statement that generates an iterator declaration class. An iterator is an object of an iterator declaration class.

J

Japanese Industrial Standard. An encoding scheme that is used to process Japanese characters.

JAR. Java Archive.

Java Archive (JAR). A file format that is used for aggregating many files into a single file.

JCL. Job control language.

JDBC. A Sun Microsystems database application programming interface (API) for Java that allows programs to access database management systems by using callable SQL. JDBC does not require the use of an SQL preprocessor. In addition, JDBC provides an architecture that lets users add modules called *database drivers*, which link the application to their choice of database management systems at run time.

JES. Job Entry Subsystem.

JIS. Japanese Industrial Standard.

job control language (JCL). A control language that is used to identify a job to an operating system and to describe the job's requirements.

Job Entry Subsystem (JES). An IBM licensed program that receives jobs into the system and processes all output data that is produced by the jobs.

join. A relational operation that allows retrieval of data from two or more tables based on matching column values. See also *equijoin*, *full outer join*, *inner join*, *left outer join*, *outer join*, and *right outer join*.

K

KB. Kilobyte (1024 bytes).

Kerberos. A network authentication protocol that is designed to provide strong authentication for client/server applications by using secret-key cryptography.

Kerberos ticket. A transparent application mechanism that transmits the identity of an initiating principal to its target. A simple ticket contains the principal's identity, a session key, a timestamp, and other information, which is sealed using the target's secret key.

key. A column or an ordered collection of columns that is identified in the description of a table, index, or referential constraint. The same column can be part of more than one key.

key-sequenced data set (KSDS). A VSAM file or data set whose records are loaded in key sequence and controlled by an index.

keyword. In SQL, a name that identifies an option that is used in an SQL statement.

KSDS. Key-sequenced data set.

L

labeled duration. A number that represents a duration of years, months, days, hours, minutes, seconds, or microseconds.

large object (LOB). A sequence of bytes representing bit data, single-byte characters, double-byte characters, or a mixture of single- and double-byte characters. A LOB can be up to 2 GB–1 byte in length. See also *BLOB*, *CLOB*, and *DBCLOB*.

last agent optimization. An optimized commit flow for either presumed-nothing or presumed-abort protocols in which the last agent, or final participant, becomes the commit coordinator. This flow saves at least one message.

latch. A DB2 internal mechanism for controlling concurrent events or the use of system resources.

LCID. Log control interval definition.

LDS. Linear data set.

leaf page. A page that contains pairs of keys and RIDs and that points to actual data. Contrast with *nonleaf page*.

left outer join. The result of a join operation that includes the matched rows of both tables that are being joined, and that preserves the unmatched rows of the first table. See also *join*.

limit key. The highest value of the index key for a partition.

linear data set (LDS). A VSAM data set that contains data but no control information. A linear data set can be accessed as a byte-addressable string in virtual storage.

linkage editor. A computer program for creating load modules from one or more object modules or load modules by resolving cross references among the modules and, if necessary, adjusting addresses.

link-edit. The action of creating a loadable computer program using a linkage editor.

list. A type of object, which DB2 utilities can process, that identifies multiple table spaces, multiple index spaces, or both. A list is defined with the LISTDEF utility control statement.

list structure. A coupling facility structure that lets data be shared and manipulated as elements of a queue.

LLE. Load list element.

L-lock. Logical lock.

load list element. A z/OS control block that controls the loading and deleting of a particular load module based on entry point names.

load module. A program unit that is suitable for loading into main storage for execution. The output of a linkage editor.

LOB. Large object.

LOB locator. A mechanism that allows an application program to manipulate a large object value in the database system. A LOB locator is a fullword integer value that represents a single LOB value. An application program retrieves a LOB locator into a host variable and can then apply SQL operations to the associated LOB value using the locator.

LOB lock. A lock on a LOB value.

LOB table space. A table space in an auxiliary table that contains all the data for a particular LOB column in the related base table.

local. A way of referring to any object that the local DB2 subsystem maintains. A *local table*, for example, is a table that is maintained by the local DB2 subsystem. Contrast with *remote*.

locale. The definition of a subset of a user's environment that combines a CCSID and characters that are defined for a specific language and country.

local lock. A lock that provides intra-DB2 concurrency control, but not inter-DB2 concurrency control; that is, its scope is a single DB2.

local subsystem. The unique relational DBMS to which the user or application program is directly connected (in the case of DB2, by one of the DB2 attachment facilities).

location. The unique name of a database server. An application uses the location name to access a DB2 database server. A database alias can be used to override the location name when accessing a remote server.

location alias. Another name by which a database server identifies itself in the network. Applications can use this name to access a DB2 database server.

lock • LUW

lock. A means of controlling concurrent events or access to data. DB2 locking is performed by the IRLM.

lock duration. The interval over which a DB2 lock is held.

lock escalation. The promotion of a lock from a row, page, or LOB lock to a table space lock because the number of page locks that are concurrently held on a given resource exceeds a preset limit.

locking. The process by which the integrity of data is ensured. Locking prevents concurrent users from accessing inconsistent data.

lock mode. A representation for the type of access that concurrently running programs can have to a resource that a DB2 lock is holding.

lock object. The resource that is controlled by a DB2 lock.

lock promotion. The process of changing the size or mode of a DB2 lock to a higher, more restrictive level.

lock size. The amount of data that is controlled by a DB2 lock on table data; the value can be a row, a page, a LOB, a partition, a table, or a table space.

lock structure. A coupling facility data structure that is composed of a series of lock entries to support shared and exclusive locking for logical resources.

log. A collection of records that describe the events that occur during DB2 execution and that indicate their sequence. The information thus recorded is used for recovery in the event of a failure during DB2 execution.

log control interval definition. A suffix of the physical log record that tells how record segments are placed in the physical control interval.

logical claim. A claim on a logical partition of a nonpartitioning index.

logical data modeling. The process of documenting the comprehensive business information requirements in an accurate and consistent format. Data modeling is the first task of designing a database.

logical drain. A drain on a logical partition of a nonpartitioning index.

logical index partition. The set of all keys that reference the same data partition.

logical lock (L-lock). The lock type that transactions use to control intra- and inter-DB2 data concurrency between transactions. Contrast with *physical lock (P-lock)*.

logically complete. A state in which the concurrent copy process is finished with the initialization of the target objects that are being copied. The target objects are available for update.

logical page list (LPL). A list of pages that are in error and that cannot be referenced by applications until the pages are recovered. The page is in *logical error* because the actual media (coupling facility or disk) might not contain any errors. Usually a connection to the media has been lost.

logical partition. A set of key or RID pairs in a nonpartitioning index that are associated with a particular partition.

logical recovery pending (LRECP). The state in which the data and the index keys that reference the data are inconsistent.

logical unit (LU). An access point through which an application program accesses the SNA network in order to communicate with another application program.

logical unit of work (LUW). The processing that a program performs between synchronization points.

logical unit of work identifier (LUWID). A name that uniquely identifies a thread within a network. This name consists of a fully-qualified LU network name, an LUW instance number, and an LUW sequence number.

log initialization. The first phase of restart processing during which DB2 attempts to locate the current end of the log.

log record header (LRH). A prefix, in every logical record, that contains control information.

log record sequence number (LRSN). A unique identifier for a log record that is associated with a data sharing member. DB2 uses the LRSN for recovery in the data sharing environment.

log truncation. A process by which an explicit starting RBA is established. This RBA is the point at which the next byte of log data is to be written.

LPL. Logical page list.

LRECP. Logical recovery pending.

LRH. Log record header.

LRSN. Log record sequence number.

LU. Logical unit.

LU name. Logical unit name, which is the name by which VTAM refers to a node in a network. Contrast with *location name*.

LUW. Logical unit of work.

LUWID. Logical unit of work identifier.

M

mapping table. A table that the REORG utility uses to map the associations of the RIDs of data records in the original copy and in the shadow copy. This table is created by the user.

mass delete. The deletion of all rows of a table.

master terminal. The IMS logical terminal that has complete control of IMS resources during online operations.

master terminal operator (MTO). See *master terminal*.

materialize. (1) The process of putting rows from a view or nested table expression into a work file for additional processing by a query.

(2) The placement of a LOB value into contiguous storage. Because LOB values can be very large, DB2 avoids materializing LOB data until doing so becomes absolutely necessary.

materialized query table. A table that is used to contain information that is derived and can be summarized from one or more source tables.

MB. Megabyte (1 048 576 bytes).

MBCS. Multibyte character set. UTF-8 is an example of an MBCS. Characters in UTF-8 can range from 1 to 4 bytes in DB2.

member name. The z/OS XCF identifier for a particular DB2 subsystem in a data sharing group.

menu. A displayed list of available functions for selection by the operator. A menu is sometimes called a *menu panel*.

metalanguage. A language that is used to create other specialized languages.

migration. The process of converting a subsystem with a previous release of DB2 to an updated or current release. In this process, you can acquire the functions of the updated or current release without losing the data that you created on the previous release.

mixed data string. A character string that can contain both single-byte and double-byte characters.

MLPA. Modified link pack area.

MODEENT. A VTAM macro instruction that associates a logon mode name with a set of parameters representing session protocols. A set of MODEENT macro instructions defines a logon mode table.

modeling database. A DB2 database that you create on your workstation that you use to model a DB2 UDB for z/OS subsystem, which can then be evaluated by the Index Advisor.

mode name. A VTAM name for the collection of physical and logical characteristics and attributes of a session.

modify locks. An L-lock or P-lock with a MODIFY attribute. A list of these active locks is kept at all times in the coupling facility lock structure. If the requesting DB2 subsystem fails, that DB2 subsystem's modify locks are converted to retained locks.

MPP. Message processing program (in IMS).

MTO. Master terminal operator.

multibyte character set (MBCS). A character set that represents single characters with more than a single byte. Contrast with *single-byte character set* and *double-byte character set*. See also *Unicode*.

multidimensional analysis. The process of assessing and evaluating an enterprise on more than one level.

Multiple Virtual Storage. An element of the z/OS operating system. This element is also called the Base Control Program (BCP).

multisite update. Distributed relational database processing in which data is updated in more than one location within a single unit of work.

multithreading. Multiple TCBs that are executing one copy of DB2 ODBC code concurrently (sharing a processor) or in parallel (on separate central processors).

must-complete. A state during DB2 processing in which the entire operation must be completed to maintain data integrity.

mutex. Pthread mutual exclusion; a lock. A Pthread mutex variable is used as a locking mechanism to allow serialization of critical sections of code by temporarily blocking the execution of all but one thread.

MVS. See *Multiple Virtual Storage*.

N

negotiable lock. A lock whose mode can be downgraded, by agreement among contending users, to be compatible to all. A physical lock is an example of a negotiable lock.

nested table expression. A fullselect in a FROM clause (surrounded by parentheses).

network identifier (NID) • overloaded function

network identifier (NID). The network ID that is assigned by IMS or CICS, or if the connection type is RRSAF, the RRS unit of recovery ID (URID).

NID. Network identifier.

nonleaf page. A page that contains keys and page numbers of other pages in the index (either leaf or nonleaf pages). Nonleaf pages never point to actual data.

nonpartitioned index. An index that is not physically partitioned. Both partitioning indexes and secondary indexes can be nonpartitioned.

nonscrollable cursor. A cursor that can be moved only in a forward direction. Nonscrollable cursors are sometimes called forward-only cursors or serial cursors.

normalization. A key step in the task of building a logical relational database design. Normalization helps you avoid redundancies and inconsistencies in your data. An entity is normalized if it meets a set of constraints for a particular normal form (first normal form, second normal form, and so on). Contrast with *denormalization*.

nondeterministic function. A user-defined function whose result is not solely dependent on the values of the input arguments. That is, successive invocations with the same argument values can produce a different answer. This type of function is sometimes called a *variant* function. Contrast this with a *deterministic function* (sometimes called a *not-variant function*), which always produces the same result for the same inputs.

not-variant function. See *deterministic function*.

NPSI. See *nonpartitioned secondary index*.

NRE. Network recovery element.

NUL. The null character ('\0'), which is represented by the value X'00'. In C, this character denotes the end of a string.

null. A special value that indicates the absence of information.

NULLIF. A scalar function that evaluates two passed expressions, returning either NULL if the arguments are equal or the value of the first argument if they are not.

null-terminated host variable. A varying-length host variable in which the end of the data is indicated by a null terminator.

null terminator. In C, the value that indicates the end of a string. For EBCDIC, ASCII, and Unicode UTF-8 strings, the null terminator is a single-byte value (X'00'). For Unicode UCS-2 (wide) strings, the null terminator is a double-byte value (X'0000').

O

OASN (origin application schedule number). In IMS, a 4-byte number that is assigned sequentially to each IMS schedule since the last cold start of IMS. The OASN is used as an identifier for a unit of work. In an 8-byte format, the first 4 bytes contain the schedule number and the last 4 bytes contain the number of IMS sync points (*commit points*) during the current schedule. The OASN is part of the NID for an IMS connection.

ODBC. Open Database Connectivity.

ODBC driver. A dynamically-linked library (DLL) that implements ODBC function calls and interacts with a data source.

OBID. Data object identifier.

Open Database Connectivity (ODBC). A Microsoft® database application programming interface (API) for C that allows access to database management systems by using callable SQL. ODBC does not require the use of an SQL preprocessor. In addition, ODBC provides an architecture that lets users add modules called *database drivers*, which link the application to their choice of database management systems at run time. This means that applications no longer need to be directly linked to the modules of all the database management systems that are supported.

ordinary identifier. An uppercase letter followed by zero or more characters, each of which is an uppercase letter, a digit, or the underscore character. An ordinary identifier must not be a reserved word.

ordinary token. A numeric constant, an ordinary identifier, a host identifier, or a keyword.

originating task. In a parallel group, the primary agent that receives data from other execution units (referred to as *parallel tasks*) that are executing portions of the query in parallel.

OS/390. Operating System/390®.

OS/390 OpenEdition® Distributed Computing Environment (OS/390 OE DCE). A set of technologies that are provided by the Open Software Foundation to implement distributed computing.

outer join. The result of a join operation that includes the matched rows of both tables that are being joined and preserves some or all of the unmatched rows of the tables that are being joined. See also *join*.

overloaded function. A function name for which multiple function instances exist.

P

package. An object containing a set of SQL statements that have been statically bound and that is available for processing. A package is sometimes also called an *application package*.

package list. An ordered list of package names that may be used to extend an application plan.

package name. The name of an object that is created by a BIND PACKAGE or REBIND PACKAGE command. The object is a bound version of a database request module (DBRM). The name consists of a location name, a collection ID, a package ID, and a version ID.

page. A unit of storage within a table space (4 KB, 8 KB, 16 KB, or 32 KB) or index space (4 KB). In a table space, a page contains one or more rows of a table. In a LOB table space, a LOB value can span more than one page, but no more than one LOB value is stored on a page.

page set. Another way to refer to a table space or index space. Each page set consists of a collection of VSAM data sets.

page set recovery pending (PSRCP). A restrictive state of an index space. In this case, the entire page set must be recovered. Recovery of a logical part is prohibited.

panel. A predefined display image that defines the locations and characteristics of display fields on a display surface (for example, a *menu panel*).

parallel complex. A cluster of machines that work together to handle multiple transactions and applications.

parallel group. A set of consecutive operations that execute in parallel and that have the same number of parallel tasks.

parallel I/O processing. A form of I/O processing in which DB2 initiates multiple concurrent requests for a single user query and performs I/O processing concurrently (in *parallel*) on multiple data partitions.

parallelism assistant. In Sysplex query parallelism, a DB2 subsystem that helps to process parts of a parallel query that originates on another DB2 subsystem in the data sharing group.

parallelism coordinator. In Sysplex query parallelism, the DB2 subsystem from which the parallel query originates.

Parallel Sysplex. A set of z/OS systems that communicate and cooperate with each other through certain multisystem hardware components and software services to process customer workloads.

parallel task. The execution unit that is dynamically created to process a query in parallel. A parallel task is implemented by a z/OS service request block.

parameter marker. A question mark (?) that appears in a statement string of a dynamic SQL statement. The question mark can appear where a host variable could appear if the statement string were a static SQL statement.

parameter-name. An SQL identifier that designates a parameter in an SQL procedure or an SQL function.

parent key. A primary key or unique key in the parent table of a referential constraint. The values of a parent key determine the valid values of the foreign key in the referential constraint.

parent lock. For explicit hierarchical locking, a lock that is held on a resource that might have child locks that are lower in the hierarchy. A parent lock is usually the table space lock or the partition intent lock. See also *child lock*.

parent row. A row whose primary key value is the foreign key value of a dependent row.

parent table. A table whose primary key is referenced by the foreign key of a dependent table.

parent table space. A table space that contains a parent table. A table space containing a dependent of that table is a dependent table space.

participant. An entity other than the commit coordinator that takes part in the commit process. The term participant is synonymous with *agent* in SNA.

partition. A portion of a page set. Each partition corresponds to a single, independently extendable data set. Partitions can be extended to a maximum size of 1, 2, or 4 GB, depending on the number of partitions in the partitioned page set. All partitions of a given page set have the same maximum size.

partitioned data set (PDS). A data set in disk storage that is divided into partitions, which are called members. Each partition can contain a program, part of a program, or data. The term partitioned data set is synonymous with program library.

partitioned index. An index that is physically partitioned. Both partitioning indexes and secondary indexes can be partitioned.

partitioned page set. A partitioned table space or an index space. Header pages, space map pages, data pages, and index pages reference data only within the scope of the partition.

partitioned table space. A table space that is subdivided into parts (based on index key range), each of which can be processed independently by utilities.

partitioning index • primary authorization ID

partitioning index. An index in which the leftmost columns are the partitioning columns of the table. The index can be partitioned or nonpartitioned.

partition pruning. The removal from consideration of inapplicable partitions through setting up predicates in a query on a partitioned table to access only certain partitions to satisfy the query.

partner logical unit. An access point in the SNA network that is connected to the local DB2 subsystem by way of a VTAM conversation.

path. See *SQL path*.

PCT. Program control table (in CICS).

PDS. Partitioned data set.

piece. A data set of a nonpartitioned page set.

physical claim. A claim on an entire nonpartitioning index.

physical consistency. The state of a page that is not in a partially changed state.

physical drain. A drain on an entire nonpartitioning index.

physical lock (P-lock). A type of lock that DB2 acquires to provide consistency of data that is cached in different DB2 subsystems. Physical locks are used only in data sharing environments. Contrast with *logical lock (L-lock)*.

physical lock contention. Conflicting states of the requesters for a physical lock. See also *negotiable lock*.

physically complete. The state in which the concurrent copy process is completed and the output data set has been created.

plan. See *application plan*.

plan allocation. The process of allocating DB2 resources to a plan in preparation for execution.

plan member. The bound copy of a DBRM that is identified in the member clause.

plan name. The name of an application plan.

plan segmentation. The dividing of each plan into sections. When a section is needed, it is independently brought into the EDM pool.

P-lock. Physical lock.

PLT. Program list table (in CICS).

point of consistency. A time when all recoverable data that an application accesses is consistent with other data. The term point of consistency is synonymous with *sync point* or *commit point*.

policy. See *CFRM policy*.

Portable Operating System Interface (POSIX). The IEEE operating system interface standard, which defines the Pthread standard of threading. See also *Pthread*.

POSIX. Portable Operating System Interface.

postponed abort UR. A unit of recovery that was in-flight or in-abort, was interrupted by system failure or cancellation, and did not complete backout during restart.

PPT. (1) Processing program table (in CICS). (2) Program properties table (in z/OS).

precision. In SQL, the total number of digits in a decimal number (called the *size* in the C language). In the C language, the number of digits to the right of the decimal point (called the *scale* in SQL). The DB2 library uses the SQL terms.

precompilation. A processing of application programs containing SQL statements that takes place before compilation. SQL statements are replaced with statements that are recognized by the host language compiler. Output from this precompilation includes source code that can be submitted to the compiler and the database request module (DBRM) that is input to the bind process.

predicate. An element of a search condition that expresses or implies a comparison operation.

prefix. A code at the beginning of a message or record.

preformat. The process of preparing a VSAM ESDS for DB2 use, by writing specific data patterns.

prepare. The first phase of a two-phase commit process in which all participants are requested to prepare for commit.

prepared SQL statement. A named object that is the executable form of an SQL statement that has been processed by the PREPARE statement.

presumed-abort. An optimization of the presumed-nothing two-phase commit protocol that reduces the number of recovery log records, the duration of state maintenance, and the number of messages between coordinator and participant. The optimization also modifies the indoubt resolution responsibility.

presumed-nothing. The standard two-phase commit protocol that defines coordinator and participant responsibilities, relative to logical unit of work states, recovery logging, and indoubt resolution.

primary authorization ID. The authorization ID that is used to identify the application process to DB2.

primary group buffer pool. For a duplexed group buffer pool, the structure that is used to maintain the coherency of cached data. This structure is used for page registration and cross-invalidation. The z/OS equivalent is *old* structure. Compare with *secondary group buffer pool*.

primary index. An index that enforces the uniqueness of a primary key.

primary key. In a relational database, a unique, nonnull key that is part of the definition of a table. A table cannot be defined as a parent unless it has a unique key or primary key.

principal. An entity that can communicate securely with another entity. In Kerberos, principals are represented as entries in the Kerberos registry database and include users, servers, computers, and others.

principal name. The name by which a principal is known to the DCE security services.

private connection. A communications connection that is specific to DB2.

private protocol access. A method of accessing distributed data by which you can direct a query to another DB2 system. Contrast with *DRDA access*.

private protocol connection. A DB2 private connection of the application process. See also *private connection*.

privilege. The capability of performing a specific function, sometimes on a specific object. The types of privileges are:

explicit privileges, which have names and are held as the result of SQL GRANT and REVOKE statements. For example, the SELECT privilege.

implicit privileges, which accompany the ownership of an object, such as the privilege to drop a synonym that one owns, or the holding of an authority, such as the privilege of SYSADM authority to terminate any utility job.

privilege set. For the installation SYSADM ID, the set of all possible privileges. For any other authorization ID, the set of all privileges that are recorded for that ID in the DB2 catalog.

process. In DB2, the unit to which DB2 allocates resources and locks. Sometimes called an *application process*, a process involves the execution of one or more programs. The execution of an SQL statement is always associated with some process. The means of initiating and terminating a process are dependent on the environment.

program. A single, compilable collection of executable statements in a programming language.

program temporary fix (PTF). A solution or bypass of a problem that is diagnosed as a result of a defect in a current unaltered release of a licensed program. An authorized program analysis report (APAR) fix is corrective service for an existing problem. A PTF is preventive service for problems that might be encountered by other users of the product. A PTF is *temporary*, because a permanent fix is usually not incorporated into the product until its next release.

protected conversation. A VTAM conversation that supports two-phase commit flows.

PSRCP. Page set recovery pending.

PTF. Program temporary fix.

Pthread. The POSIX threading standard model for splitting an application into subtasks. The Pthread standard includes functions for creating threads, terminating threads, synchronizing threads through locking, and other thread control facilities.

Q

QMF™. Query Management Facility.

QSAM. Queued sequential access method.

query. A component of certain SQL statements that specifies a result table.

query block. The part of a query that is represented by one of the FROM clauses. Each FROM clause can have multiple query blocks, depending on DB2's internal processing of the query.

query CP parallelism. Parallel execution of a single query, which is accomplished by using multiple tasks. See also *Sysplex query parallelism*.

query I/O parallelism. Parallel access of data, which is accomplished by triggering multiple I/O requests within a single query.

queued sequential access method (QSAM). An extended version of the basic sequential access method (BSAM). When this method is used, a queue of data blocks is formed. Input data blocks await processing, and output data blocks await transfer to auxiliary storage or to an output device.

quiesce point. A point at which data is consistent as a result of running the DB2 QUIESCE utility.

quiesced member state. A state of a member of a data sharing group. An active member becomes quiesced when a STOP DB2 command takes effect without a failure. If the member's task, address space, or z/OS system fails before the command takes effect, the member state is failed.

R

RACF. Resource Access Control Facility, which is a component of the z/OS Security Server.

RAMAC®. IBM family of enterprise disk storage system products.

RBA. Relative byte address.

RCT. Resource control table (in CICS attachment facility).

RDB. Relational database.

RDBMS. Relational database management system.

RDBNAM. Relational database name.

RDF. Record definition field.

read stability (RS). An isolation level that is similar to repeatable read but does not completely isolate an application process from all other concurrently executing application processes. Under level RS, an application that issues the same query more than once might read additional rows that were inserted and committed by a concurrently executing application process.

rebind. The creation of a new application plan for an application program that has been bound previously. If, for example, you have added an index for a table that your application accesses, you must rebind the application in order to take advantage of that index.

rebuild. The process of reallocating a coupling facility structure. For the shared communications area (SCA) and lock structure, the structure is repopulated; for the group buffer pool, changed pages are usually cast out to disk, and the new structure is populated only with changed pages that were not successfully cast out.

RECFM. Record format.

record. The storage representation of a row or other data.

record identifier (RID). A unique identifier that DB2 uses internally to identify a row of data in a table. Compare with *row ID*.

record identifier (RID) pool. An area of main storage that is used for sorting record identifiers during list-prefetch processing.

record length. The sum of the length of all the columns in a table, which is the length of the data as it is physically stored in the database. Records can be fixed length or varying length, depending on how the columns are defined. If all columns are fixed-length columns, the record is a fixed-length record. If one or more columns are varying-length columns, the record is a varying-length column.

Recoverable Resource Manager Services attachment facility (RRSAF). A DB2 subcomponent that uses Resource Recovery Services to coordinate resource commitment between DB2 and all other resource managers that also use RRS in a z/OS system.

recovery. The process of rebuilding databases after a system failure.

recovery log. A collection of records that describes the events that occur during DB2 execution and indicates their sequence. The recorded information is used for recovery in the event of a failure during DB2 execution.

recovery manager. (1) A subcomponent that supplies coordination services that control the interaction of DB2 resource managers during commit, abort, checkpoint, and restart processes. The recovery manager also supports the recovery mechanisms of other subsystems (for example, IMS) by acting as a participant in the other subsystem's process for protecting data that has reached a point of consistency. (2) A coordinator or a participant (or both), in the execution of a two-phase commit, that can access a recovery log that maintains the state of the logical unit of work and names the immediate upstream coordinator and downstream participants.

recovery pending (RECP). A condition that prevents SQL access to a table space that needs to be recovered.

recovery token. An identifier for an element that is used in recovery (for example, NID or URID).

RECP. Recovery pending.

redo. A state of a unit of recovery that indicates that changes are to be reapplied to the disk media to ensure data integrity.

reentrant. Executable code that can reside in storage as one shared copy for all threads. Reentrant code is not self-modifying and provides separate storage areas for each thread. Reentrancy is a compiler and operating system concept, and reentrancy alone is not enough to guarantee logically consistent results when multithreading. See also *threadsafe*.

referential constraint. The requirement that nonnull values of a designated foreign key are valid only if they equal values of the primary key of a designated table.

referential integrity. The state of a database in which all values of all foreign keys are valid. Maintaining referential integrity requires the enforcement of referential constraints on all operations that change the data in a table on which the referential constraints are defined.

referential structure. A set of tables and relationships that includes at least one table and, for every table in the set, all the relationships in which that table participates and all the tables to which it is related.

refresh age. The time duration between the current time and the time during which a materialized query table was last refreshed.

registry. See *registry database*.

registry database. A database of security information about principals, groups, organizations, accounts, and security policies.

relational database (RDB). A database that can be perceived as a set of tables and manipulated in accordance with the relational model of data.

relational database management system (RDBMS). A collection of hardware and software that organizes and provides access to a relational database.

relational database name (RDBNAM). A unique identifier for an RDBMS within a network. In DB2, this must be the value in the LOCATION column of table SYSIBM.LOCATIONS in the CDB. DB2 publications refer to the name of another RDBMS as a LOCATION value or a location name.

relationship. A defined connection between the rows of a table or the rows of two tables. A relationship is the internal representation of a referential constraint.

relative byte address (RBA). The offset of a data record or control interval from the beginning of the storage space that is allocated to the data set or file to which it belongs.

remigration. The process of returning to a current release of DB2 following a fallback to a previous release. This procedure constitutes another migration process.

remote. Any object that is maintained by a remote DB2 subsystem (that is, by a DB2 subsystem other than the local one). A *remote view*, for example, is a view that is maintained by a remote DB2 subsystem. Contrast with *local*.

remote attach request. A request by a remote location to attach to the local DB2 subsystem. Specifically, the request that is sent is an SNA Function Management Header 5.

remote subsystem. Any relational DBMS, except the *local subsystem*, with which the user or application can communicate. The subsystem need not be remote in any physical sense, and might even operate on the same processor under the same z/OS system.

reoptimization. The DB2 process of reconsidering the access path of an SQL statement at run time; during

reoptimization, DB2 uses the values of host variables, parameter markers, or special registers.

REORG pending (REORP). A condition that restricts SQL access and most utility access to an object that must be reorganized.

REORP. REORG pending.

repeatable read (RR). The isolation level that provides maximum protection from other executing application programs. When an application program executes with repeatable read protection, rows that the program references cannot be changed by other programs until the program reaches a commit point.

repeating group. A situation in which an entity includes multiple attributes that are inherently the same. The presence of a repeating group violates the requirement of first normal form. In an entity that satisfies the requirement of first normal form, each attribute is independent and unique in its meaning and its name. See also *normalization*.

replay detection mechanism. A method that allows a principal to detect whether a request is a valid request from a source that can be trusted or whether an untrustworthy entity has captured information from a previous exchange and is replaying the information exchange to gain access to the principal.

request commit. The vote that is submitted to the prepare phase if the participant has modified data and is prepared to commit or roll back.

requester. The source of a request to access data at a remote server. In the DB2 environment, the requester function is provided by the distributed data facility.

resource. The object of a lock or claim, which could be a table space, an index space, a data partition, an index partition, or a logical partition.

resource allocation. The part of plan allocation that deals specifically with the database resources.

resource control table (RCT). A construct of the CICS attachment facility, created by site-provided macro parameters, that defines authorization and access attributes for transactions or transaction groups.

resource definition online. A CICS feature that you use to define CICS resources online without assembling tables.

resource limit facility (RLF). A portion of DB2 code that prevents dynamic manipulative SQL statements from exceeding specified time limits. The resource limit facility is sometimes called the governor.

resource limit specification table (RLST). A site-defined table that specifies the limits to be enforced by the resource limit facility.

resource manager • scale

resource manager. (1) A function that is responsible for managing a particular resource and that guarantees the consistency of all updates made to recoverable resources within a logical unit of work. The resource that is being managed can be physical (for example, disk or main storage) or logical (for example, a particular type of system service). (2) A participant, in the execution of a two-phase commit, that has recoverable resources that could have been modified. The resource manager has access to a recovery log so that it can commit or roll back the effects of the logical unit of work to the recoverable resources.

restart pending (RESTOP). A restrictive state of a page set or partition that indicates that restart (backout) work needs to be performed on the object. All access to the page set or partition is denied except for access by the:

- RECOVER POSTPONED command
- Automatic online backout (which DB2 invokes after restart if the system parameter LBACKOUT=AUTO)

RESTOP. Restart pending.

result set. The set of rows that a stored procedure returns to a client application.

result set locator. A 4-byte value that DB2 uses to uniquely identify a query result set that a stored procedure returns.

result table. The set of rows that are specified by a SELECT statement.

retained lock. A MODIFY lock that a DB2 subsystem was holding at the time of a subsystem failure. The lock is retained in the coupling facility lock structure across a DB2 failure.

RID. Record identifier.

RID pool. Record identifier pool.

right outer join. The result of a join operation that includes the matched rows of both tables that are being joined and preserves the unmatched rows of the second join operand. See also *join*.

RLF. Resource limit facility.

RLST. Resource limit specification table.

RMID. Resource manager identifier.

RO. Read-only access.

rollback. The process of restoring data that was changed by SQL statements to the state at its last commit point. All locks are freed. Contrast with *commit*.

root page. The index page that is at the highest level (or the beginning point) in an index.

routine. A term that refers to either a user-defined function or a stored procedure.

row. The horizontal component of a table. A row consists of a sequence of values, one for each column of the table.

ROWID. Row identifier.

row identifier (ROWID). A value that uniquely identifies a row. This value is stored with the row and never changes.

row lock. A lock on a single row of data.

| **rowset.** A set of rows for which a cursor position is established.

| **rowset cursor.** A cursor that is defined so that one or more rows can be returned as a rowset for a single FETCH statement, and the cursor is positioned on the set of rows that is fetched.

| **rowset-positioned access.** The ability to retrieve multiple rows from a single FETCH statement.

| **row-positioned access.** The ability to retrieve a single row from a single FETCH statement.

row trigger. A trigger that is defined with the trigger granularity FOR EACH ROW.

RRE. Residual recovery entry (in IMS).

RRSAF. Recoverable Resource Manager Services attachment facility.

RS. Read stability.

RTT. Resource translation table.

RURE. Restart URE.

S

savepoint. A named entity that represents the state of data and schemas at a particular point in time within a unit of work. SQL statements exist to set a savepoint, release a savepoint, and restore data and schemas to the state that the savepoint represents. The restoration of data and schemas to a savepoint is usually referred to as *rolling back to a savepoint*.

SBCS. Single-byte character set.

SCA. Shared communications area.

scalar function. An SQL operation that produces a single value from another value and is expressed as a function name, followed by a list of arguments that are enclosed in parentheses. Contrast with *column function*.

scale. In SQL, the number of digits to the right of the decimal point (called the *precision* in the C language). The DB2 library uses the SQL definition.

schema. (1) The organization or structure of a database. (2) A logical grouping for user-defined functions, distinct types, triggers, and stored procedures. When an object of one of these types is created, it is assigned to one schema, which is determined by the name of the object. For example, the following statement creates a distinct type T in schema C:

```
CREATE DISTINCT TYPE C.T ...
```

scrollability. The ability to use a cursor to fetch in either a forward or backward direction. The FETCH statement supports multiple fetch orientations to indicate the new position of the cursor. See also *fetch orientation*.

scrollable cursor. A cursor that can be moved in both a forward and a backward direction.

SDWA. System diagnostic work area.

search condition. A criterion for selecting rows from a table. A search condition consists of one or more predicates.

secondary authorization ID. An authorization ID that has been associated with a primary authorization ID by an authorization exit routine.

secondary group buffer pool. For a duplexed group buffer pool, the structure that is used to back up changed pages that are written to the primary group buffer pool. No page registration or cross-invalidation occurs using the secondary group buffer pool. The z/OS equivalent is *new* structure.

secondary index. A nonpartitioning index on a partitioned table.

section. The segment of a plan or package that contains the executable structures for a single SQL statement. For most SQL statements, one section in the plan exists for each SQL statement in the source program. However, for cursor-related statements, the DECLARE, OPEN, FETCH, and CLOSE statements reference the same section because they each refer to the SELECT statement that is named in the DECLARE CURSOR statement. SQL statements such as COMMIT, ROLLBACK, and some SET statements do not use a section.

segment. A group of pages that holds rows of a single table. See also *segmented table space*.

segmented table space. A table space that is divided into equal-sized groups of pages called segments. Segments are assigned to tables so that rows of different tables are never stored in the same segment.

self-referencing constraint. A referential constraint that defines a relationship in which a table is a dependent of itself.

self-referencing table. A table with a self-referencing constraint.

sensitive cursor. A cursor that is sensitive to changes that are made to the database after the result table has been materialized.

sequence. A user-defined object that generates a sequence of numeric values according to user specifications.

sequential data set. A non-DB2 data set whose records are organized on the basis of their successive physical positions, such as on magnetic tape. Several of the DB2 database utilities require sequential data sets.

sequential prefetch. A mechanism that triggers consecutive asynchronous I/O operations. Pages are fetched before they are required, and several pages are read with a single I/O operation.

serial cursor. A cursor that can be moved only in a forward direction.

serialized profile. A Java object that contains SQL statements and descriptions of host variables. The SQLJ translator produces a serialized profile for each connection context.

server. The target of a request from a remote requester. In the DB2 environment, the server function is provided by the distributed data facility, which is used to access DB2 data from remote applications.

server-side programming. A method for adding DB2 data into dynamic Web pages.

service class. An eight-character identifier that is used by the z/OS Workload Manager to associate user performance goals with a particular DDF thread or stored procedure. A service class is also used to classify work on parallelism assistants.

service request block. A unit of work that is scheduled to execute in another address space.

session. A link between two nodes in a VTAM network.

session protocols. The available set of SNA communication requests and responses.

shared communications area (SCA). A coupling facility list structure that a DB2 data sharing group uses for inter-DB2 communication.

share lock. A lock that prevents concurrently executing application processes from changing data, but not from reading data. Contrast with *exclusive lock*.

shift-in character. A special control character (X'0F') that is used in EBCDIC systems to denote that the subsequent bytes represent SBCS characters. See also *shift-out character*.

shift-out character • SQL path

shift-out character. A special control character (X'0E') that is used in EBCDIC systems to denote that the subsequent bytes, up to the next shift-in control character, represent DBCS characters. See also *shift-in character*.

sign-on. A request that is made on behalf of an individual CICS or IMS application process by an attachment facility to enable DB2 to verify that it is authorized to use DB2 resources.

simple page set. A nonpartitioned page set. A simple page set initially consists of a single data set (page set piece). If and when that data set is extended to 2 GB, another data set is created, and so on, up to a total of 32 data sets. DB2 considers the data sets to be a single contiguous linear address space containing a maximum of 64 GB. Data is stored in the next available location within this address space without regard to any partitioning scheme.

simple table space. A table space that is neither partitioned nor segmented.

single-byte character set (SBCS). A set of characters in which each character is represented by a single byte. Contrast with *double-byte character set* or *multibyte character set*.

single-precision floating point number. A 32-bit approximate representation of a real number.

size. In the C language, the total number of digits in a decimal number (called the *precision* in SQL). The DB2 library uses the SQL term.

SMF. System Management Facilities.

SMP/E. System Modification Program/Extended.

SMS. Storage Management Subsystem.

SNA. Systems Network Architecture.

SNA network. The part of a network that conforms to the formats and protocols of Systems Network Architecture (SNA).

socket. A callable TCP/IP programming interface that TCP/IP network applications use to communicate with remote TCP/IP partners.

sourced function. A function that is implemented by another built-in or user-defined function that is already known to the database manager. This function can be a scalar function or a column (aggregating) function; it returns a single value from a set of values (for example, MAX or AVG). Contrast with *built-in function*, *external function*, and *SQL function*.

source program. A set of host language statements and SQL statements that is processed by an SQL precompiler.

source table. A table that can be a base table, a view, a table expression, or a user-defined table function.

source type. An existing type that DB2 uses to internally represent a distinct type.

space. A sequence of one or more blank characters.

special register. A storage area that DB2 defines for an application process to use for storing information that can be referenced in SQL statements. Examples of special registers are USER and CURRENT DATE.

specific function name. A particular user-defined function that is known to the database manager by its specific name. Many specific user-defined functions can have the same function name. When a user-defined function is defined to the database, every function is assigned a specific name that is unique within its schema. Either the user can provide this name, or a default name is used.

SPUFI. SQL Processor Using File Input.

SQL. Structured Query Language.

SQL authorization ID (SQL ID). The authorization ID that is used for checking dynamic SQL statements in some situations.

SQLCA. SQL communication area.

SQL communication area (SQLCA). A structure that is used to provide an application program with information about the execution of its SQL statements.

SQL connection. An association between an application process and a local or remote application server or database server.

SQLDA. SQL descriptor area.

SQL descriptor area (SQLDA). A structure that describes input variables, output variables, or the columns of a result table.

SQL escape character. The symbol that is used to enclose an SQL delimited identifier. This symbol is the double quotation mark ("). See also *escape character*.

SQL function. A user-defined function in which the CREATE FUNCTION statement contains the source code. The source code is a single SQL expression that evaluates to a single value. The SQL user-defined function can return only one parameter.

SQL ID. SQL authorization ID.

SQLJ. Structured Query Language (SQL) that is embedded in the Java programming language.

SQL path. An ordered list of schema names that are used in the resolution of unqualified references to user-defined functions, distinct types, and stored

procedures. In dynamic SQL, the current path is found in the CURRENT PATH special register. In static SQL, it is defined in the PATH bind option.

SQL procedure. A user-written program that can be invoked with the SQL CALL statement. Contrast with *external procedure*.

SQL processing conversation. Any conversation that requires access of DB2 data, either through an application or by dynamic query requests.

SQL Processor Using File Input (SPUFI). A facility of the TSO attachment subcomponent that enables the DB2I user to execute SQL statements without embedding them in an application program.

SQL return code. Either SQLCODE or SQLSTATE.

SQL routine. A user-defined function or stored procedure that is based on code that is written in SQL.

SQL statement coprocessor. An alternative to the DB2 precompiler that lets the user process SQL statements at compile time. The user invokes an SQL statement coprocessor by specifying a compiler option.

SQL string delimiter. A symbol that is used to enclose an SQL string constant. The SQL string delimiter is the apostrophe ('), except in COBOL applications, where the user assigns the symbol, which is either an apostrophe or a double quotation mark (").

SRB. Service request block.

SSI. Subsystem interface (in z/OS).

SSM. Subsystem member (in IMS).

stand-alone. An attribute of a program that means that it is capable of executing separately from DB2, without using DB2 services.

star join. A method of joining a dimension column of a fact table to the key column of the corresponding dimension table. See also *join*, *dimension*, and *star schema*.

star schema. The combination of a fact table (which contains most of the data) and a number of dimension tables. See also *star join*, *dimension*, and *dimension table*.

statement handle. In DB2 ODBC, the data object that contains information about an SQL statement that is managed by DB2 ODBC. This includes information such as dynamic arguments, bindings for dynamic arguments and columns, cursor information, result values, and status information. Each statement handle is associated with the connection handle.

statement string. For a dynamic SQL statement, the character string form of the statement.

statement trigger. A trigger that is defined with the trigger granularity FOR EACH STATEMENT.

static cursor. A named control structure that does not change the size of the result table or the order of its rows after an application opens the cursor. Contrast with *dynamic cursor*.

static SQL. SQL statements, embedded within a program, that are prepared during the program preparation process (before the program is executed). After being prepared, the SQL statement does not change (although values of host variables that are specified by the statement might change).

storage group. A named set of disks on which DB2 data can be stored.

stored procedure. A user-written application program that can be invoked through the use of the SQL CALL statement.

string. See *character string* or *graphic string*.

strong typing. A process that guarantees that only user-defined functions and operations that are defined on a distinct type can be applied to that type. For example, you cannot directly compare two currency types, such as Canadian dollars and U.S. dollars. But you can provide a user-defined function to convert one currency to the other and then do the comparison.

structure. (1) A name that refers collectively to different types of DB2 objects, such as tables, databases, views, indexes, and table spaces. (2) A construct that uses z/OS to map and manage storage on a coupling facility. See also *cache structure*, *list structure*, or *lock structure*.

Structured Query Language (SQL). A standardized language for defining and manipulating data in a relational database.

structure owner. In relation to group buffer pools, the DB2 member that is responsible for the following activities:

- Coordinating rebuild, checkpoint, and damage assessment processing
- Monitoring the group buffer pool threshold and notifying castout owners when the threshold has been reached

subcomponent. A group of closely related DB2 modules that work together to provide a general function.

subject table. The table for which a trigger is created. When the defined triggering event occurs on this table, the trigger is activated.

subpage. The unit into which a physical index page can be divided.

subquery • table space

subquery. A SELECT statement within the WHERE or HAVING clause of another SQL statement; a nested SQL statement.

subselect. That form of a query that does not include an ORDER BY clause, an UPDATE clause, or UNION operators.

substitution character. A unique character that is substituted during character conversion for any characters in the source program that do not have a match in the target coding representation.

subsystem. A distinct instance of a relational database management system (RDBMS).

surrogate pair. A coded representation for a single character that consists of a sequence of two 16-bit code units, in which the first value of the pair is a high-surrogate code unit in the range U+D800 through U+DBFF, and the second value is a low-surrogate code unit in the range U+DC00 through U+DFFF. Surrogate pairs provide an extension mechanism for encoding 917 476 characters without requiring the use of 32-bit characters.

SVC dump. A dump that is issued when a z/OS or a DB2 functional recovery routine detects an error.

sync point. See *commit point*.

syncpoint tree. The tree of recovery managers and resource managers that are involved in a logical unit of work, starting with the recovery manager, that make the final commit decision.

synonym. In SQL, an alternative name for a table or view. Synonyms can be used to refer only to objects at the subsystem in which the synonym is defined.

syntactic character set. A set of 81 graphic characters that are registered in the IBM registry as character set 00640. This set was originally recommended to the programming language community to be used for syntactic purposes toward maximizing portability and interchangeability across systems and country boundaries. It is contained in most of the primary registered character sets, with a few exceptions. See also *invariant character set*.

Sysplex. See *Parallel Sysplex*.

Sysplex query parallelism. Parallel execution of a single query that is accomplished by using multiple tasks on more than one DB2 subsystem. See also *query CP parallelism*.

system administrator. The person at a computer installation who designs, controls, and manages the use of the computer system.

system agent. A work request that DB2 creates internally such as prefetch processing, deferred writes, and service tasks.

system conversation. The conversation that two DB2 subsystems must establish to process system messages before any distributed processing can begin.

system diagnostic work area (SDWA). The data that is recorded in a SYS1.LOGREC entry that describes a program or hardware error.

system-directed connection. A connection that a relational DBMS manages by processing SQL statements with three-part names.

System Modification Program/Extended (SMP/E). A z/OS tool for making software changes in programming systems (such as DB2) and for controlling those changes.

Systems Network Architecture (SNA). The description of the logical structure, formats, protocols, and operational sequences for transmitting information through and controlling the configuration and operation of networks.

SYS1.DUMPxx data set. A data set that contains a system dump (in z/OS).

SYS1.LOGREC. A service aid that contains important information about program and hardware errors (in z/OS).

T

table. A named data object consisting of a specific number of columns and some number of unordered rows. See also *base table* or *temporary table*.

table-controlled partitioning. A type of partitioning in which partition boundaries for a partitioned table are controlled by values that are defined in the CREATE TABLE statement. Partition limits are saved in the LIMITKEY_INTERNAL column of the SYSIBM.SYSTABLEPART catalog table.

table function. A function that receives a set of arguments and returns a table to the SQL statement that references the function. A table function can be referenced only in the FROM clause of a subselect.

table locator. A mechanism that allows access to trigger transition tables in the FROM clause of SELECT statements, in the subselect of INSERT statements, or from within user-defined functions. A table locator is a fullword integer value that represents a transition table.

table space. A page set that is used to store the records in one or more tables.

table space set. A set of table spaces and partitions that should be recovered together for one of these reasons:

- Each of them contains a table that is a parent or descendent of a table in one of the others.
- The set contains a base table and associated auxiliary tables.

A table space set can contain both types of relationships.

task control block (TCB). A z/OS control block that is used to communicate information about tasks within an address space that are connected to DB2. See also *address space connection*.

TB. Terabyte (1 099 511 627 776 bytes).

TCB. Task control block (in z/OS).

TCP/IP. A network communication protocol that computer systems use to exchange information across telecommunication links.

TCP/IP port. A 2-byte value that identifies an end user or a TCP/IP network application within a TCP/IP host.

template. A DB2 utilities output data set descriptor that is used for dynamic allocation. A template is defined by the TEMPLATE utility control statement.

temporary table. A table that holds temporary data. Temporary tables are useful for holding or sorting intermediate results from queries that contain a large number of rows. The two types of temporary table, which are created by different SQL statements, are the created temporary table and the declared temporary table. Contrast with *result table*. See also *created temporary table* and *declared temporary table*.

Terminal Monitor Program (TMP). A program that provides an interface between terminal users and command processors and has access to many system services (in z/OS).

thread. The DB2 structure that describes an application's connection, traces its progress, processes resource functions, and delimits its accessibility to DB2 resources and services. Most DB2 functions execute under a thread structure. See also *allied thread* and *database access thread*.

threadsafe. A characteristic of code that allows multithreading both by providing private storage areas for each thread, and by properly serializing shared (global) storage areas.

three-part name. The full name of a table, view, or alias. It consists of a location name, authorization ID, and an object name, separated by a period.

time. A three-part value that designates a time of day in hours, minutes, and seconds.

time duration. A decimal integer that represents a number of hours, minutes, and seconds.

timeout. Abnormal termination of either the DB2 subsystem or of an application because of the unavailability of resources. Installation specifications are set to determine both the amount of time DB2 is to wait for IRLM services after starting, and the amount of time IRLM is to wait if a resource that an application requests is unavailable. If either of these time specifications is exceeded, a timeout is declared.

Time-Sharing Option (TSO). An option in MVS that provides interactive time sharing from remote terminals.

timestamp. A seven-part value that consists of a date and time. The timestamp is expressed in years, months, days, hours, minutes, seconds, and microseconds.

TMP. Terminal Monitor Program.

to-do. A state of a unit of recovery that indicates that the unit of recovery's changes to recoverable DB2 resources are indoubt and must either be applied to the disk media or backed out, as determined by the commit coordinator.

trace. A DB2 facility that provides the ability to monitor and collect DB2 monitoring, auditing, performance, accounting, statistics, and serviceability (global) data.

transaction lock. A lock that is used to control concurrent execution of SQL statements.

transaction program name. In SNA LU 6.2 conversations, the name of the program at the remote logical unit that is to be the other half of the conversation.

transient XML data type. A data type for XML values that exists only during query processing.

transition table. A temporary table that contains all the affected rows of the subject table in their state before or after the triggering event occurs. Triggered SQL statements in the trigger definition can reference the table of changed rows in the old state or the new state.

transition variable. A variable that contains a column value of the affected row of the subject table in its state before or after the triggering event occurs. Triggered SQL statements in the trigger definition can reference the set of old values or the set of new values.

tree structure. A data structure that represents entities in nodes, with a most one parent node for each node, and with only one root node.

trigger. A set of SQL statements that are stored in a DB2 database and executed when a certain event occurs in a DB2 table.

trigger activation • unit of recovery

trigger activation. The process that occurs when the trigger event that is defined in a trigger definition is executed. Trigger activation consists of the evaluation of the triggered action condition and conditional execution of the triggered SQL statements.

trigger activation time. An indication in the trigger definition of whether the trigger should be activated before or after the triggered event.

trigger body. The set of SQL statements that is executed when a trigger is activated and its triggered action condition evaluates to true. A trigger body is also called *triggered SQL statements*.

trigger cascading. The process that occurs when the triggered action of a trigger causes the activation of another trigger.

triggered action. The SQL logic that is performed when a trigger is activated. The triggered action consists of an optional triggered action condition and a set of triggered SQL statements that are executed only if the condition evaluates to true.

triggered action condition. An optional part of the triggered action. This Boolean condition appears as a WHEN clause and specifies a condition that DB2 evaluates to determine if the triggered SQL statements should be executed.

triggered SQL statements. The set of SQL statements that is executed when a trigger is activated and its triggered action condition evaluates to true. Triggered SQL statements are also called the *trigger body*.

trigger granularity. A characteristic of a trigger, which determines whether the trigger is activated:

- Only once for the triggering SQL statement
- Once for each row that the SQL statement modifies

triggering event. The specified operation in a trigger definition that causes the activation of that trigger. The triggering event is comprised of a triggering operation (INSERT, UPDATE, or DELETE) and a subject table on which the operation is performed.

triggering SQL operation. The SQL operation that causes a trigger to be activated when performed on the subject table.

trigger package. A package that is created when a CREATE TRIGGER statement is executed. The package is executed when the trigger is activated.

TSO. Time-Sharing Option.

TSO attachment facility. A DB2 facility consisting of the DSN command processor and DB2I. Applications that are not written for the CICS or IMS environments can run under the TSO attachment facility.

typed parameter marker. A parameter marker that is specified along with its target data type. It has the general form:

CAST(? AS data-type)

type 1 indexes. Indexes that were created by a release of DB2 before DB2 Version 4 or that are specified as type 1 indexes in Version 4. Contrast with *type 2 indexes*. As of Version 8, type 1 indexes are no longer supported.

type 2 indexes. Indexes that are created on a release of DB2 after Version 7 or that are specified as type 2 indexes in Version 4 or later.

U

UCS-2. Universal Character Set, coded in 2 octets, which means that characters are represented in 16-bits per character.

UDF. User-defined function.

UDT. User-defined data type. In DB2 UDB for z/OS, the term *distinct type* is used instead of user-defined data type. See *distinct type*.

uncommitted read (UR). The isolation level that allows an application to read uncommitted data.

underlying view. The view on which another view is directly or indirectly defined.

undo. A state of a unit of recovery that indicates that the changes that the unit of recovery made to recoverable DB2 resources must be backed out.

Unicode. A standard that parallels the ISO-10646 standard. Several implementations of the Unicode standard exist, all of which have the ability to represent a large percentage of the characters that are contained in the many scripts that are used throughout the world.

uniform resource locator (URL). A Web address, which offers a way of naming and locating specific items on the Web.

union. An SQL operation that combines the results of two SELECT statements. Unions are often used to merge lists of values that are obtained from several tables.

unique constraint. An SQL rule that no two values in a primary key, or in the key of a unique index, can be the same.

unique index. An index that ensures that no identical key values are stored in a column or a set of columns in a table.

unit of recovery. A recoverable sequence of operations within a single resource manager, such as an instance of DB2. Contrast with *unit of work*.

unit of recovery identifier (URID). The LOGRBA of the first log record for a unit of recovery. The URID also appears in all subsequent log records for that unit of recovery.

unit of work. A recoverable sequence of operations within an application process. At any time, an application process is a single unit of work, but the life of an application process can involve many units of work as a result of commit or rollback operations. In a *multisite update* operation, a single unit of work can include several *units of recovery*. Contrast with *unit of recovery*.

Universal Unique Identifier (UUID). An identifier that is immutable and unique across time and space (in z/OS).

unlock. The act of releasing an object or system resource that was previously locked and returning it to general availability within DB2.

untyped parameter marker. A parameter marker that is specified without its target data type. It has the form of a single question mark (?).

updatability. The ability of a cursor to perform positioned updates and deletes. The updatability of a cursor can be influenced by the SELECT statement and the cursor sensitivity option that is specified on the DECLARE CURSOR statement.

update hole. The location on which a cursor is positioned when a row in a result table is fetched again and the new values no longer satisfy the search condition. DB2 marks a row in the result table as an update hole when an update to the corresponding row in the database causes that row to no longer qualify for the result table.

update trigger. A trigger that is defined with the triggering SQL operation UPDATE.

upstream. The node in the syncpoint tree that is responsible, in addition to other recovery or resource managers, for coordinating the execution of a two-phase commit.

UR. Uncommitted read.

URE. Unit of recovery element.

URID . Unit of recovery identifier.

URL. Uniform resource locator.

user-defined data type (UDT). See *distinct type*.

user-defined function (UDF). A function that is defined to DB2 by using the CREATE FUNCTION statement and that can be referenced thereafter in SQL statements. A user-defined function can be an *external function*, a *sourced function*, or an *SQL function*. Contrast with *built-in function*.

user view. In logical data modeling, a model or representation of critical information that the business requires.

UTF-8. Unicode Transformation Format, 8-bit encoding form, which is designed for ease of use with existing ASCII-based systems. The CCSID value for data in UTF-8 format is 1208. DB2 UDB for z/OS supports UTF-8 in mixed data fields.

UTF-16. Unicode Transformation Format, 16-bit encoding form, which is designed to provide code values for over a million characters and a superset of UCS-2. The CCSID value for data in UTF-16 format is 1200. DB2 UDB for z/OS supports UTF-16 in graphic data fields.

UUID. Universal Unique Identifier.

V

value. The smallest unit of data that is manipulated in SQL.

variable. A data element that specifies a value that can be changed. A COBOL elementary data item is an example of a variable. Contrast with *constant*.

variant function. See *nondeterministic function*.

varying-length string. A character or graphic string whose length varies within set limits. Contrast with *fixed-length string*.

version. A member of a set of similar programs, DBRMs, packages, or LOBs.

A version of a program is the source code that is produced by precompiling the program. The program version is identified by the program name and a timestamp (consistency token).

A version of a DBRM is the DBRM that is produced by precompiling a program. The DBRM version is identified by the same program name and timestamp as a corresponding program version.

A version of a package is the result of binding a DBRM within a particular database system. The package version is identified by the same program name and consistency token as the DBRM.

A version of a LOB is a copy of a LOB value at a point in time. The version number for a LOB is stored in the auxiliary index entry for the LOB.

view. An alternative representation of data from one or more tables. A view can include all or some of the columns that are contained in tables on which it is defined.

view check option. An option that specifies whether every row that is inserted or updated through a view must conform to the definition of that view. A view check option can be specified with the WITH CASCADED

Virtual Storage Access Method (VSAM) • z/OS Distributed Computing Environment (z/OS DCE)

CHECK OPTION, WITH CHECK OPTION, or WITH LOCAL CHECK OPTION clauses of the CREATE VIEW statement.

Virtual Storage Access Method (VSAM). An access method for direct or sequential processing of fixed- and varying-length records on disk devices. The records in a VSAM data set or file can be organized in logical sequence by a key field (key sequence), in the physical sequence in which they are written on the data set or file (entry-sequence), or by relative-record number (in z/OS).

Virtual Telecommunications Access Method (VTAM). An IBM licensed program that controls communication and the flow of data in an SNA network (in z/OS).

volatile table. A table for which SQL operations choose index access whenever possible.

VSAM. Virtual Storage Access Method.

VTAM. Virtual Telecommunication Access Method (in z/OS).

W

warm start. The normal DB2 restart process, which involves reading and processing log records so that data that is under the control of DB2 is consistent. Contrast with *cold start*.

WLM application environment. A z/OS Workload Manager attribute that is associated with one or more stored procedures. The WLM application environment determines the address space in which a given DB2 stored procedure runs.

write to operator (WTO). An optional user-coded service that allows a message to be written to the system console operator informing the operator of errors and unusual system conditions that might need to be corrected (in z/OS).

WTO. Write to operator.

WTOR. Write to operator (WTO) with reply.

X

XCF. See *cross-system coupling facility*.

XES. See *cross-system extended services*.

XML. See *Extensible Markup Language*.

XML attribute. A name-value pair within a tagged XML element that modifies certain features of the element.

XML element. A logical structure in an XML document that is delimited by a start and an end tag.

XML node. The smallest unit of valid, complete structure in a document. For example, a node can represent an element, an attribute, or a text string.

XML publishing functions. Functions that return XML values from SQL values.

X/Open. An independent, worldwide open systems organization that is supported by most of the world's largest information systems suppliers, user organizations, and software companies. X/Open's goal is to increase the portability of applications by combining existing and emerging standards.

XRF. Extended recovery facility.

Z

z/OS. An operating system for the eServer™ product line that supports 64-bit real and virtual storage.

z/OS Distributed Computing Environment (z/OS DCE). A set of technologies that are provided by the Open Software Foundation to implement distributed computing.

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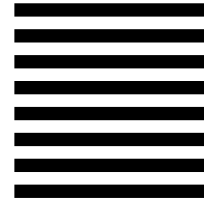
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